501

420 425 430

Glu Lys Gly Gln Ser Ile Asp Asp Met Ile Pro Ala Gln Lys 435 440 445

<210> 500

<211> 198

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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Leu Cys Pro Arg His Ala Xaa Xaa Ala His Leu His Val Glu Ile Phe 1 5 10 15

Gly Thr Gln Gly Lys Pro Ala Ile Ala His Arg Asp Phe Lys Ser Arg 20 25 30

Asn Val Leu Val Lys Ser Asn Leu Gln Cys Cys Ile Ala Asp Leu Gly 35 40 45

Leu Ala Val Met His Ser Gln Gly Ser Asp Tyr Leu Asp Ile Gly Asn 50 60

Asn Pro Arg Val Gly Thr Lys Arg Tyr Met Ala Pro Glu Val Leu Asp

502

75

70

65

Glu Gln Ile Arg Thr Asp Cys Phe Glu Ser Tyr Lys Trp Thr Asp Ile 90 Trp Ala Phe Gly Leu Val Leu Trp Glu Ile Ala Arg Arg Thr Ile Val Asn Gly Ile Val Glu Asp Tyr Arg Pro Pro Phe Tyr Xaa Val Val Pro 120 Asn Asp Pro Ser Phe Glu Asp Met Lys Lys Val Val Cys Val Asp Gln 135 Gln Thr Pro Thr Ile Pro Asn Arg Leu Ala Ala Asp Pro Val Leu Ser 145 150 155 Gly Leu Ala Gln Met Met Arg Glu Cys Trp Tyr Pro Asn Pro Ser Ala 170 Arg Leu Xaa Ala Leu Gly Ser Arg Arg His Tyr Lys Lys Leu Ala Thr 180 185 Val Gln Arg Xaa Leu Lys 195 <210> 501 <211> 354 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (119) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (141) <223> Xaa equals any of the naturally occurring L-amino acids <400> 501 His Glu Gly Gly His Gly His Ala Gly His His His His His 5 10

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Asp	Asp	Pro 35	Thr	Gln	Val	His	His 40	His	Gln	Glu	Val	Ile 45	Leu	Val	Gln
Thr	Arg 50	Glu	Glu	Val	Val	Gly 55	Gly	Asp	Asp	Ser	Asp 60	Gly	Leu	Arg	Ala
Glu 65	Asp	Gly	Phe	Glu	Asp 70	Gln	Ile	Leu	Ile	Pro 75	Val	Pro	Ala	Pro	Ala 80
Gly	Gly	Asp	Asp	Asp 85	Tyr	Ile	Glu	Gln	Thr 90	Leu	Val	Thr	Val	Ala 95	Ala
Ala	Gly	Lys	Ser 100	Gly	Gly	Gly	Gly	Ser 105	Phe	Val	Val	Gly	Arg 110	Arg	Pro
Arg	Gln	Glu 115	Gly	Arg	Arg	Xaa	Glu 120	Glu	Arg	Gln	Glu	Glu 125	Leu	Pro	Gln
Arg	Arg 130	Gly	Ala	Arg	Arg	Ala 135	Ala	Xaa	Arg	Thr	Arg 140	Xaa	Asn	Lys	Lys
Trp 145	Glu	Gln	Lys	Gln	Val 150	Gln	Ile	Lys	Thr	Leu 155	Glu	Gly	Glu	Phe	Ser 160
Val	Thr	Met	Trp	Ser 165	Ser	Asp	Glu	Lys	Lys 170	Asp	Ile	Asp	His	Glu 175	Thr
Val	Val	Glu	Glu 180	Gln	Ile	Ile	Gly	Glu 185	Asn	Ser	Pro	Pro	Asp 190	Tyr	Ser
Glu	Tyr	Met 195	Thr	Gly	Lys	Lys	Leu 200	Pro	Pro	Gly	Gly	11e 205	Pro	Gly	Ile
Asp	Leu 210	Ser	Asp	Pro	Lys	Gln 215	Leu	Ala	Glu	Phe	Ala 220	Arg	Met	Lys	Pro
Arg 225	Lys	Ile	Lys		Asp 230	Asp	Ala	Pro	Arg	Thr 235	Ile	Ala	Cys	Pro	His 240
Lys	Gly	Cys	Thr	Lys 245	Met	Phe	Arg	Asp	Asn 250	Ser	Ala	Met	Arg	Lys 255	His
Leu	His	Thr	His 260	Gly	Pro	Arg	Val	His 265	Val	Cys	Ala	Glu	Cys 270	Gly	Lys
Ala	Phe	Val 275	Glu	Ser	Ser	Lys	Leu 280	Lys	Arg	His	Gln	Leu 285	Val	His	Thr

504

Gly Glu Lys Pro Phe Gln Cys Thr Phe Glu Gly Cys Gly Lys Arg Phe 290 295 300

Ser Leu Asp Phe Asn Leu Arg Thr His Val Arg Ile His Thr Gly Asp 305 310 315 320

Arg Pro Tyr Val Cys Pro Phe Asp Gly Cys Asn Lys Lys Phe Ala Gln 325 330 335

Ser Thr Asn Leu Lys Ser His Ile Leu Thr His Ala Lys Ala Lys Asn 340 345 350

Asn Gln

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<211> 81

<212> PRT

<213> Homo sapiens

<400> 502

Leu Pro Trp Leu Leu Phe Glu Thr Val Met Thr Phe Leu Leu Ile Ser 1 5 10 15

Leu Leu Val Ser Phe Ser Gly Arg Ala Gly Cys Leu Glu Phe Ser Val

Lys Glu Thr Gln Asp Ser Pro Leu Phe Leu Cys Leu Trp Glu Ser Pro 35 40 45

Trp His Thr Pro Lys Arg Gly Pro Cys Ser Val Ser Gln Gly Ser Phe 50 60

Cys Ile Phe Gly Leu Ala Ser Tyr Ile Cys His Val Val Ser Ser Ser 65 70 75 80

Ala

<210> 503

<211> 59

<212> PRT

<213> Homo sapiens

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505

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Thr Pro Ala Pro Xaa Ser Pro Ala Ala Ala Arg Glu Ser Thr Arg Arg
                                  _ 10
Val Ala Ile Asn Val Arg Ala Ser Ile Ala Leu Ser Xaa Ser Leu Arg
                                 25
Thr Leu Val Leu Pro Arg Leu Thr Xaa Thr Ser Pro Gly Pro Arg Gly
         35
Xaa Gly Xaa Phe Gly Cys Pro Xaa Ser Phe Lys
     50
                         55
<210> 504
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<212> PRT
<213> Homo sapiens
<400> 504
Ser Leu Phe Thr Met Ser Leu Gln Arg Leu Leu Gln His Ser Ser Asn
                  5
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506

Gly Asn Leu Ala Asp Phe Cys Ala Gly Pro Ala Tyr Ser Ser Tyr Ser 20 25 30

Thr Leu Thr Gly Ser Leu Thr Met Asp Asp Asn Arg Arg Ile Gln Met 35 40 45

Leu Ala Asp Thr Val Ala Thr Leu Pro Arg Gly Arg Lys Gln Leu Ala 50 55 60

Leu Thr Arg Ser Ser Ser Leu Ser Asp Phe Ser Trp Ser Gln Arg Lys
65 70 75 80

Gln Ser Tyr Arg Pro Gln Asn Gln Asn Ala Cys Ser Ser Glu Met Phe 100 105 110

Thr Leu Ile Cys Lys Ile Gln Glu Asp Ser Pro Ala His Cys Ala Gly
115 120 125

Leu Gln Ala Gly Asp Val Leu Ala Asn Ile Asn Gly Val Ser Thr Glu 130 135 140

Gly Phe Thr Tyr Lys Gln Val Val Asp Leu Ile Arg Ser Ser Gly Asn 145 150 155 160

Leu Leu Thr Ile Glu Thr Leu Asn Gly Thr Met Ile Leu Lys Arg Thr 165 170 175

Glu Leu Glu Ala Lys Leu Gln Val Leu Lys Gln Thr Leu Lys Gln Asn 180 185 190

Gly Trp Ser Thr Asp Leu Cys Ser Tyr Arg Asn Ile Val Cys Phe Met 195 200 205

Val Met Gln Leu Ile Ala Pro Val Trp Glu Asn Met Gly Leu Gly Met 210 215 220

Glu Leu Ser Leu Phe Gly Pro Leu Pro Gly Pro Gly Pro Ala Leu Val 225 230 235 240

Asp Arg Asn Arg Leu Ser Ser Glu Ser Ser Cys 245 250

<210> 505

<211> 112

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PCT/US00/05918

WO 00/55180

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Pro Arg Ala Ala Xaa Arg Gly Ser Phe Leu Ala Ser Ala Arg Arg Val
Gly Ser Trp Leu Val Ser Ala Glu Gly Val Gly Pro Ala Leu Leu
                             40
Phe Ser Pro Ala Lys Pro Gln Trp Glu Leu Gly Gln Gly Glu Ser Gln
                         55
                                             60
Ala Ile Gly Gly Gln Xaa Trp Gly Cys Ser Pro Thr Val Cys Ile Cys
Ser Ala Leu Trp Gly Ile Gln Glu His Pro Pro Ser Arg Gly Trp Glu
Pro Cys Pro Met Lys Pro Ser Pro Gln Leu Tyr Leu Leu Pro Arg Pro
            100
<210> 506
<211> 105
<212> PRT
<213> Homo sapiens
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<400> 506 Lys Asn His Val Ser Ser Leu Ser Ser Tyr Phe Phe Phe Ser Xaa Phe

<223> Xaa equals any of the naturally occurring L-amino acids

508

10 Ser Leu Pro Arg Thr Phe Ser Leu Phe Ser Thr Asn Val His Leu Val 25 Phe Phe Gly Ser Ala Lys Ile Ser Ile Cys Val Cys Leu Gln Leu Ser Leu Leu Thr Ala His Ser Lys Gly Phe Cys Ile Ser Gly Phe His Phe 55 Val Ala Ala Glu Met Leu Arg Gln Ala Ser Ala Ser Ala Pro Ala Gly 75 70 Cys Thr Met Leu Leu Pro Arg Arg Glu Asp Thr Glu Ser Lys Trp Gln 85 90 Asp Leu Arg Leu Ala Ser Thr Leu Pro 100 <210> 507 <211> 406 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (71) <223> Xaa equals any of the naturally occurring L-amino acids Val Lys Gly Asp Lys Gly Asn Pro Gly Trp Pro Gly Ala Pro Gly Val Pro Gly Pro Lys Gly Asp Pro Gly Phe Gln Gly Met Pro Gly Ile Gly Gly Ser Pro Gly Ile Thr Gly Ser Lys Gly Asp Met Gly Pro Pro Gly Val Pro Gly Phe Gln Gly Pro Lys Gly Leu Pro Gly Leu Gln Gly Ile Lys Gly Asp Gln Gly Asp Xaa Gly Val Pro Gly Ala Lys Gly Leu Pro 70 Gly Pro Pro Gly Pro Pro Tyr Asp Ile Ile Lys Gly Glu Pro 85 . 90

PCT/US00/05918

Gly	Leu	Pro	Gly 100	Pro	Glu	Gly	Pro	Pro 105	Gly	Leu	Lys	Gly	Leu 110	Gln	Gly
Leu	Pro	Gly 115	Pro	Lys	Gly	Gln	Gln 120	Gly	Val	Thr	Gly	Leu 125	Val	Gly	Ile
Pro	Gly 130	Pro	Pro	Gly	Ile	Pro 135	Gly	Phe	Asp	Gly	Ala 140	Pro	Gly	Gln	Lys
Gly 145	Glu	Met	Gly	Pro	Ala 150	Gly	Pro	Thr	Gly	Pro 155	Arg	Gly	Phe	Pro	Gly 160
Pro	Pro	Gly	Pro	Asp 165	Gly	Leu	Pro	Gly	Ser 170	Met	Gly	Pro	Pro	Gly 175	Thr
Pro	Ser	Val	Asp 180	His	Gly	Phe	Leu	Val 185	Thr	Arg	His	Ser	Gln 190	Thr	Ile
Asp	Asp	Pro 195	Gln	Cys	Pro	Ser	Gly 200	Thr	Lys	Ile	Leu	Туг 205	His	Gly	Tyr
Ser	Leu 210	Leu	Tyr	Val	Gln	Gly 215	Asn	Glu	Arg	Ala	His 220	Gly	Gln	Asp	Leu
Gly 225	Thr	Ala	Gly	Ser	Cys 230	Leu	Arg	Lys	Phe	ser 235	Thr	Met	Pro	Phe	Leu 240
Phe	Cys	Asn	Ile	Asn 245	Asn	Val	Cys	Asn	Phe 250	Ala	Ser	Arg	Asn	Asp 255	Tyr
Ser	Tyr	Trp	Leu 260	Ser	Thr	Pro	Glu	Pro 265	Met	Pro	Met	Ser	Met 270	Ala	Pro
Ile	Thr	Gly 275	Glu	Asn	Ile	Arg	Pro 280	Phe	Ile	Ser	Arg	Cys 285	Ala	Val	Cys
Glu	Ala 290	Pro	Ala	Met	Val	Met 295	Ala	Val	His	Ser	Gln 300	Thr	Ile	Gln	Ile
Pro 305	Pro	Сув	Pro	Ser	Gly 310	Trp	Ser	Ser	Leu	Trp 315	Ile	Gly	Tyr	Ser	Phe 320
Val	Met	His	Thr	Ser 325	Ala	Gly	Ala	Glu	Gly 330	Ser	Gly	Gln	Ala	Leu 335	Ala
Ser	Pro	Gly	Ser 340	Cys	Leu	Glu	Glu	Phe 345	Arg	Ser	Ala	Pro	Phe 350	Ile	Glu
Сув	His	Gly 355	Arg	Gly	Thr	Cys	Asn 360	Туr	Tyr	Ala	Asn	Ala 365	Tyr	Ser	Phe

Trp Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro 370 375 380

Ser Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln 385 390 395 400

Val Cys Met Arg Arg Thr 405

<210> 508

<211> 91

<212> PRT

<213> Homo sapiens

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<400> 508

Leu Pro Ser Pro Asn Thr Gly Leu Trp Pro Gln Arg Xaa Ser Phe Ser 1 5 10 15

Gly Arg Lys Phe Val Pro Thr Asp Cys Pro Pro Ala Phe Phe Pro Leu 20 · 25 30

Ala Ala Ile Cys Cys Arg Leu Glu Pro Glu Ser Arg Pro Ala Phe Ser $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Lys Leu Glu Asp Ser Phe Glu Ala Leu Ser Leu Tyr Leu Gly Glu Leu 50 55 60

Gly Ile Pro Leu Pro Ala Glu Leu Glu Glu Leu Asp His Thr Val Ser
65 70 75 80

Met Gln Tyr Gly Leu Thr Arg Asp Ser Pro Pro 85 90

<210> 509

<211> 74

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

511

<400> 509 Thr Cys Ile His Ile Gly Phe Gln Asp Ile Leu Ser Tyr Ile Phe Ser 10 Ser Phe Gln Ser Cys Phe Leu Phe Trp Gly Tyr Phe Phe Yaa Leu 25 Cys Asn Ser Gln Arg Ala Ala Phe Phe Phe Phe Asn Lys Ala Tyr 40 Asn Tyr Gly Trp Ile Phe Cys Ser Ser Leu Leu Arg Arg Ala Ile Leu 55 60 Phe Phe Arg Val Thr Ser Lys Val Met Trp 70 <210> 510 <211> 47 <212> PRT <213> Homo sapiens <400> 510 Leu Val Phe Phe Thr Asp Ser Leu Phe Ser Arg Arg Ala Phe Tyr Leu 10 Asn Lys Thr Met Gln Leu Ser Lys Pro Ile Tyr Gly Leu Arg Glu Thr 25 Phe Leu His Glu Phe Leu Gln Thr Val Cys Tyr Ile Phe Leu Glu <210> 511 <211> 246 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (207) <223> Xaa equals any of the naturally occurring L-amino acids <400> 511 Gly Ala Arg Ser Pro Ala Met Ser Arg Ser Asn Arg Gln Lys Glu Tyr

Lys Cys Gly Asp Leu Val Phe Ala Lys Met Lys Gly Tyr Pro His Trp

512

20 25 Pro Ala Arg Ile Asp Glu Met Pro Glu Ala Ala Val Lys Ser Thr Ala Asn Lys Tyr Gln Val Phe Phe Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr Glu Glu Ser Lys Glu Lys Phe Gly Lys Pro Asn Lys Arg Lys Gly Phe Ser Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Thr Val Lys Ala Ser Gly Tyr Gln Ser Ser Gln Lys Lys 105 100 Ser Cys Val Glu Glu Pro Glu Pro Glu Pro Glu Ala Ala Glu Gly Asp 120 Gly Asp Lys Lys Gly Asn Ala Glu Gly Ser Ser Asp Glu Gly Lys Leu Val Ile Asp Glu Pro Ala Lys Glu Lys Asn Glu Lys Gly Ala Leu Lys Arg Arg Ala Gly Asp Leu Leu Glu Asp Ser Pro Lys Arg Pro Lys 170 Glu Ala Glu Asn Pro Glu Gly Glu Glu Lys Glu Ala Ala Thr Leu Glu 180 185 Val Glu Arg Pro Leu Pro Met Glu Val Glu Lys Asn Ser Thr Xaa Ser 200 Glu Pro Gly Ser Gly Arg Gly Pro Pro Gln Glu Glu Glu Glu Glu Glu 215 Asp Glu Glu Glu Ala Thr Lys Glu Asp Ala Glu Ala Pro Gly Ile

Arg Asp His Glu Ser Leu

245

<210> 512

225

<211> 250

<212> PRT

<213> Homo sapiens

513

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<22	3> X	aa e	quals	s any	y of	the	nati	ıral	ly o	ccur:	ring	L-a	mino	acio	ds
<40	0> 5:	12													
Leu 1	Xaa	Trp	Glu	Thr 5	Val	Gln	Lys	Asn	Gln 10	Asn	Leu	Arg	Cys	Phe 15	Va:
Phe	Ile	Phe	Ile 20	Ser	Ser	Trp	Thr	Asp 25	Leu	Gly	Val	Ala	Thr 30	Val	Va:
Cys	Gln	Pro 35	Asn	Glu	Phe	Ile	Met 40	Pro	Asp	Ser	Ala	Val 45	Val	Gly	Ası
Val	Leu 50	Val	Leu	Thr	Lys	Pro 55	Leu	Gly	Thr	Gln	Val 60	Ala	Val	Asn	Ala
His 65	Gln	Trp	Leu	Asp	Asn 70	Pro	Glu	Arg	Trp	Asn 75	Lys	Val	Lys	Met	Va:
Val	Ser	Arg	Glu	Glu 85	Val	Glu	Leu	Ala	Tyr 90	Gln	Glu	Ala	Met	Phe 95	Ası
Met	Ala	Thr	Leu 100	Asn	Arg	Thr	Ala	Ala 105	Gly	Leu	Met	His	Thr 110	Phe	Ası
Ala	His	Ala 115	Ala	Thr	Asp	Ile	Thr 120	Gly	Phe	Gly	Ile	Leu 125	Gly	His	Se
Gln	Asn 130	Leu	Ala	Lys	Gln	Gln 135	Arg	Asn	Glu	Val	Ser 140	Phe	Val	Ile	His
Asn 145	Leu	Pro	Ile	Ile	Ala 150	Lys	Met	Ala	Ala	Val 155	ser	Lys	Ala	Ser	Gl ₃
Arg	Phe	Gly	Leu	Leu 165	Gln	Gly	Thr	Ser	Ala 170	Glu	Thr	Ser	Gly	Gly 175	Lei
Leu	Ile	Суз	Leu 180	Pro	Arg	Glu	Gln	Ala 185	Ala	Arg	Phe	Cys	Ser 190	Glu	Ile

Lys Ser Ser Lys Tyr Gly Glu Gly His Gln Ala Trp Ile Val Gly Ile 195 200 205

Val Glu Lys Gly Asn Arg Thr Ala Arg Ile Ile Asp Lys Pro Arg Val

Ile Glu Val Leu Pro Arg Gly Ala Thr Ala Ala Val Leu Ala Pro Asp

230 235 240

215

514

Ser Ser Asn Ala Ser Ser Glu Pro Ser Ser 245 250

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Pro Phe Glu Asp Ser Gly Gln Arg Arg His His Glu Gly Ala Gly Ser
1 5 10 15

Ala Gly Pro Leu Leu Gln Ser Thr Ile Ile Val Glu Lys Thr Val Gln 20 25 30

Asp Leu Leu Asn Leu Met His Asp Leu Ser Ala Tyr Ser Asp Gln Phe 35 40 45

Leu Asn Met Val Cys Val Lys Xaa Gln Glu Tyr Lys Asp Thr Cys Thr
50 55 60

Ala Ala Tyr Arg Gly Ile Val Gln Ser Glu Glu Lys Leu Val Ile Ser 65 70 75 80

Ala Ser Trp Ala Lys Asp Asp Ile Ser Arg Leu Leu Lys Ser Leu 85 90 95

Pro Asn Trp Met Asn Met Ala Gln Pro Lys Gln Leu Arg Pro Lys Arg 100 105 110

Glu	Glu	Glu 115	Glu	Asp	Phe	Ile	Arg 120	Ala	Ala	Phe	Gly	Lys 125	Glu	Ser	Glu
Val	Leu 130	Ile	Gly	Asn	Leu	Gly 135	Asp	Lys	Leu	Ile	Pro 140	Pro	Gln	Asp	Ile
Leu 145	Arg	Asp	Val	Ser	Asp 150	Leu	Lys	Ala	Leu	Ala 155	Asn	Met	His	Glu	Ser 160
Leu	Glu	Trp	Leu	Ala 165	Ser	Arg	Thr	Lys	Ser 170	Ala	Phe	Ser	Asn	Leu 175	Ser
Thr	Ser	Gln	Met 180	Leu	Ser	Pro	Ala	Gln 185	Asp	Ser	His	Thr	Asn 190	Thr	Asp
Leu	Pro	Pro 195	Val	Ser	Glu	Gln	Ile 200	Met	Gln	Thr	Leu	Ser 205	Glu	Leu	Ala
Lys	Ser 210	Phe	Gln	Xaa	Met	Ala 215	Asp	Arg	Cys	Leu	Leu 220	Val	Leu	His	Leu
Glu 225	Val	Arg	Val	His	Cys 230	Phe	His	туг	Leu	Ile 235	Pro	Leu	Ala	Lys	Glu 240
Gly	Asn	Tyr	Ala	Ile 245	Val	Ala	Asn	Val	Glu 250	Ser	Met	Asp	Tyr	Asp 255	Pro
Leu	Val	Val	Lys 260	Leu	Asn	Lys	Asp	Ile 265	Ser	Ala	Ile	Glu	Glu 270	Ala	Met
Ser	Ala	Xaa 275	Phe	Gln	Gln	His	Lys 280	Phe	Gln	туг	Ile	Phe 285	Glu	Gly	Leu
Gly	His 290	Leu	Ile	Ser	Cys	Ile 295	Leu	Ile	Asn	Gly	Ala 300	Gln	Tyr	Phe	Arg
Arg 305	Ile	Ser	Glu	Ser	Gly 310	Ile	Lys	Lys	Met	Cys 315	Arg	Asn	Ile	Phe	Xaa 320
Leu	Gln	Gln	Asn	Leu 325	Thr	Asn	Ile	Thr	Met 330	Ser	Arg	Glu	Ala	Asp 335	Leu
Asp	Phe	Ala	Arg 340	Gln	Tyr	туг	Glu	Met 345	Leu	Tyr	Asn	Thr	Ala 350	Asp	Glu
Leu	Leu	Asn 355	Leu	Val	Val	Asp	Gln 360	Gly	Val	Lys	Tyr	Thr 365	Glu	Leu	Glu
Tyr	Ile 370	His	Ala	Leu	Thr	Leu 375	Leu	His	Arg	Ser	Gln 380	Thr	Gly	Val	Gly

Glu Leu Thr Thr Gln Asn Thr Arg Leu Gln Arg Leu Lys Glu Ile Ile 385 390 395 400

Cys Glu Gln Ala Ala Ile Lys Gln Ala Thr Lys Asp Lys Lys Ile Thr 405 410 415

Thr Val

<210> 514

<211> 61

<212> PRT

<213> Homo sapiens

<400> 514

Lys Ala Ser Asp Cys Ser Met Leu Thr Pro Thr Ser Arg Tyr Glu Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Phe Thr Glu Asn Leu Pro Leu Trp Gln Leu Lys Met Glu Val Trp Gly 20 25 30

Ala Gln Thr Thr Leu Ser Asn Asn Ile Lys Ala Asn Ile Asn Ser His $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Lys His Tyr Arg Ile Cys Lys Phe Arg Thr Phe Tyr Thr 50 55 60

<210> 515

<211> 181

<212> PRT

<213> Homo sapiens

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517

<220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (122) <223> Xaa equals any of the naturally occurring L-amino acids <400> 515 Arg Ser Trp Gly Gly Leu Xaa Arg Ser Thr Gly Thr Ala Arg Arg Thr Ser Trp Arg Arg Ser Gly Gln Cys Arg Thr Gly Cys Ala Asp Thr Thr Thr Ser Trp Xaa Xaa Pro Xaa Thr Leu Gln Arg Arg Val Gln Pro Xaa 40 Val Asn Val Ser Pro Ser Lys Lys Gly Pro Leu Gln His His Asn Leu 55 Leu Val Cys His Val Thr Asp Phe Tyr Pro Gly Ser Ile Gln Val Arg 70 65 Trp Phe Leu Asn Gly Gln Glu Glu Thr Ala Gly Val Val Ser Thr Asn Leu Ile Arg Asn Gly Asp Trp Thr Phe Gln Ile Leu Val Met Leu Glu 100 Met Thr Pro Gln Gln Gly Asp Val Tyr Xaa Cys Gln Val Glu His Thr 120 Ser Leu Asp Ser Pro Val Thr Val Glu Trp Lys Ala Gln Ser Asp Ser 135 Ala Arg Ser Lys Thr Leu Thr Gly Ala Gly Gly Phe Val Leu Gly Leu 145 150 155 Ile Ile Cys Gly Val Gly Ile Phe Met His Arg Arg Ser Lys Lys Val 170

Gln Arg Gly Ser Ala

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<21	3> н	omo :	sapi	ens											
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Gly	Thr	Met	Asn 20	Ile	Phe	Asp	Arg	Lys 25	Ile	Asn	Phe	Asp	Ala 30	Leu	Leu
Lys	Phe	Ser 35	His	Ile	Thr	Pro	Ser 40	Thr	Gln	Gln	His	Leu 45	Lys	Lys	Va]
Tyr	Ala 50	Ser	Phe	Ala	Leu	Cys 55	Met	Phe	Val	Ala	Ala 60	Ala	Gly	Ala	Туг
Val 65	His	Met	Val	Thr	His 70	Phe	Ile	Gln	Ala	Gly 75	Leu	Leu	Ser	Ala	Let 80
Gly	Ser	Leu	Ile	Leu 85	Met	Ile	Trp	Leu	Met 90	Ala	Thr	Pro	His	Ser 95	His
Glu	Thr	Glu	Gln 100	Lys	Arg	Leu	Gly	Leu 105	Leu	Ala	Gly	Phe	Ala 110	Phe	Leu
Thr	Gly	Val 115	Gly	Leu	Gly	Pro	Ala 120	Leu	Glu	Phe	Сув	Ile 125	Ala	Val	Asr
Pro	Ser 130	Ile	Leu	Pro	Thr	Ala 135	Phe	Met	Gly	Thr	Ala 140	Met	Ile	Phe	Thr
Cys 145	Phe	Thr	Leu	Ser	Ala 150	Leu	Tyr	Ala	Arg	Arg 155	Arg	Ser	Tyr	Leu	Phe 160
Leu	Gly	Gly	Ile	Leu 165	Met	Ser	Ala	Leu	Ser 170	Leu	Leu	Leu	Leu	Ser 175	Ser
Leu	Gly	Asn	Val 180	Phe	Phe	Gly	Ser	Ile 185	Trp	Leu	Phe	Gln	Ala 190	Asn	Leu
Tyr	Val	Gly 195	Leu	Val	Val	Met	Cys 200	Gly	Phe	Val	Leu	Phe 205	Asp	Thr	Gln
Leu	Ile 210	Ile	Glu	Lys	Ala	Glu 215	His	Gly	Asp	Gln	Asp 220	Tyr	Ile	Trp	His

PCT/US00/05918

Cys Ile Asp Leu Phe Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met 225 230 230 240

Met Ile Leu Ala Met Asn Glu Lys Asp Lys Lys Glu Lys Lys 245 250 250

<210> 517

WO 00/55180

<211> 247

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (81)

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<400> 517

Xaa Val Gly Arg Gly Xaa Arg Cys Ser Ser Ala Ser Pro Gly Thr Pro 1 5 10 15

Pro Pro Arg Ala Pro Ala Xaa Pro Ser Ala Gly Arg Ala Asp Pro Ala 20 25 30

Val Leu Ser Pro Ala Ala Arg Ala Gly Ala Ala Pro Ser Ala Pro Gln
35 40 45

Gln Thr Pro Ile Met Gly Ser Gln Ser Ser Lys Ala Pro Arg Gly Asp 50 60

Val Thr Ala Glu Glu Ala Ala Gly Ala Ser Pro Ala Lys Ala Asn Gly 65 70 75 80

Xaa Glu Asn Gly His Val Lys Ser Asn Gly Asp Leu Ser Pro Lys Gly

520

90 95 Glu Gly Glu Ser Pro Pro Val Asn Gly Thr Asp Glu Ala Ala Gly Ala 100 105 Thr Gly Asp Ala Ile Glu Pro Ala Pro Pro Ser Gln Gly Ala Glu Ala 120 Lys Gly Glu Val Pro Pro Lys Glu Thr Pro Lys Lys Lys Lys Phe 135 Ser Phe Lys Lys Pro Phe Lys Leu Ser Gly Leu Ser Phe Lys Arg Asn 155 Arg Lys Glu Gly Gly Asp Ser Ser Ala Ser Ser Pro Thr Glu Glu 165 170 Glu Gln Glu Gln Gly Glu Ile Gly Ala Cys Ser Asp Glu Gly Thr Ala 185 Gln Glu Gly Lys Ala Ala Ala Thr Pro Glu Ser Gln Glu Pro Gln Ala 200 Lys Gly Ala Glu Ala Ser Ala Ala Ser Glu Glu Glu Ala Gly Pro Gln Ala Thr Glu Pro Ser Thr Pro Ser Gly Pro Glu Ser Gly Pro Thr Pro 230 235 Ala Ser Ala Glu Gln Asn Glu 245 <210> 518 <211> 430 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <400> 518

Gln Arg Gly Ala Arg Asp Ile Trp Pro Glu Xaa Leu Ser Gly Pro Thr

Arg Ala Pro Gly Ser Ala Ala Leu Pro Gly Ser Lys Gly Asp Thr Gly

25

Asn	Pro	Gly 35	Ala	Pro	Gly	Thr	Pro 40	Gly	Thr	Lys	Gly	Trp 45	Ala	Gly	Asp
Ser	Gly 50	Pro	Gln	Gly	Arg	Pro 55	Gly	Val	Phe	Gly	Leu 60	Pro	Gly	Glu	Lys
Gly 65	Pro	Arg	Gly	Glu	Gln 70	Gly	Phe	Met	Gly	Asn 75	Thr	Gly	Pro	Thr	Gly 80
Ala	Val	Gly	Asp	Arg 85	Gly	Pro	Lys	Gly	Pro 90	Lys	Gly	Asp	Pro	Gly 95	Phe
Pro	Gly	Ala	Pro 100	Gly	Thr	Val	Gly	Ala 105	Pro	Gly	Ile	Ala	Gly 110	Ile	Pro
Gln	Lys	Ile 115	Ala	Val	Gln	Pro	Gly 120	Thr	Val	Gly	Pro	Gln 125	Gly	Arg	Arg
Gly	Pro 130	Pro	Gly	Ala	Pro	Gly 135	Glu	Met	Gly	Pro	Gln 140	Gly	Pro	Pro	Gly
Glu 145	Pro	Gly	Phe	Arg	Gly 150	Ala	Pro	Gly	Lys	Ala 155	Gly	Pro	Gln	Gly	Arg
Gly	Gly	Val	Ser	Ala 165	Val	Pro	Gly	Phe	Arg 170	Gly	Asp	Glu	Gly	Pro 175	Ile
Gly	His	Gln	Gly 180	Pro	Ile	Gly	Gln	Glu 185	Gly	Ala	Pro	Gly	Arg 190	Pro	Gly
Ser	Pro	Gly 195	Leu	Pro	Gly	Met	Pro 200	Gly	Arg	Ser	Val	Ser 205	Ile	Gly	Туг
Leu	Leu 210	Val	Lys	His	Ser	Gln 215	Thr	Asp	Gln	Glu	Pro 220	Met	Cys	Pro	Val
Gly 225	Met	Asn	Lys	Leu	Trp 230	Ser	Gly	Tyr	Ser	Leu 235	Leu	Tyr	Phe	Glu	Gly 240
Gln	Glu	Lys	Ala	His 245	Asn	Gln	Asp	Leu	Gly 250	Leu	Ala	Gly	Ser	Cys 255	Leu
Ala	Arg	Phe	Ser 260	Thr	Met	Pro	Phe	Leu 265	Tyr	Сув	Asn	Pro	Gly 270	Asp	Val
Cys	Tyr	Tyr 275	Ala	Ser	Arg	Asn	Asp 280	Lys	Ser	Tyr	Trp	Leu 285	Ser	Thr	Thr
	Pro	Leu	Pro	Met		Pro		Ala	Glu	Asp	Glu	Ile	Lys	Pro	туг

522

Ile Ser Arg Cys Ser Val Cys Glu Ala Pro Ala Ile Ala Ile Ala Val 310 His Ser Gln Asp Val Ser Ile Pro His Cys Pro Ala Gly Trp Arg Ser 325 Leu Trp Ile Gly Tyr Ser Phe Leu Met His Thr Ala Ala Gly Asp Glu Gly Gly Gln Ser Leu Val Ser Pro Gly Ser Cys Leu Glu Asp Phe 360 . 365 Arg Ala Thr Pro Phe Ile Glu Cys Asn Gly Gly Arg Gly Thr Cys His 375 Tyr Tyr Ala Asn Lys Tyr Ser Phe Trp Leu Thr Thr Ile Pro Glu Gln 390 395 Ser Phe Gln Gly Ser Pro Ser Ala Asp Thr Leu Lys Ala Gly Leu Ile 405 410 Arg Thr His Ile Ser Arg Cys Gln Val Cys Met Lys Asn Leu 420 425 <210> 519 <211> 68 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 519 Ser Cys Phe Leu Arg Lys Asp Leu Ser Asn Trp Gln Leu Gln Arg His 5 10 15 Tyr Phe Leu Thr Val Leu Tyr His Val Leu Leu Thr Leu Gln Lys

50 55 60

Gly Ser Gly Arg Glu Thr Val Ser Leu Phe Tyr Leu Phe Ser Leu Lys 35 40 45

Tyr Lys Ser Ile Pro Thr Asn His Leu Leu Trp Ser Ala Cys Phe Thr

Cys Pro Leu Xaa

523

<210> 520 <211> 97 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids <400> 520 Pro Arg Ser Pro Thr Gly Glu Trp Leu Pro Arg Asp Ser Glu Cys His 10 Leu Cys Met Ser Val Thr Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala 25 20 Ile Pro Gln Ala Met Leu Gln Ala Cys Xaa Gly Ser Trp Leu Asp Arg 40 Glu Lys Cys Lys Gln Phe Xaa Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg Gly Trp Asp Ala His Thr Thr Cys Gln Ala Leu Gly 75 70 Val Cys Gly Thr Met Ser Ser Pro Leu Gln Cys Ile His Ser Pro Asp 90 85 Leu

<210> 521 <211> 119 <212> PRT <213> Homo sapiens

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<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

524

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40

50

Met Arg Ser Pro Glu Leu Ala Leu Pro Arg Gly Met Gln Pro Thr Glu

Phe Phe Gln Ser Leu Gly Gly Asp Gly Glu Arg Asn Val Gln Ile Glu 65 70 Met Ala His Gly Thr Thr Leu Ala Phe Lys Phe Gln His Gly Val 90 85 Ile Ala Ala Val Asp Ser Arg Ala Ser Ala Gly Ser Tyr Ile Ser Ala 105 Leu Arg Val Asn Lys Val Ile Glu Ile Asn Pro Tyr Leu Leu Gly Thr 120 Met Ser Gly Cys Ala Ala Asp Cys Gln Tyr Trp Glu Arg Leu Leu Ala Lys Glu Cys Arg Leu Tyr Tyr Leu Arg Asn Gly Glu Arg Ile Ser Val 150 155 Ser Ala Ala Ser Lys Leu Leu Ser Asn Met Met Cys Gln Tyr Arg Gly 165 170 Met Gly Leu Ser Met Gly Ser Met Ile Cys Gly Trp Asp Lys Lys Gly 185 Pro Gly Leu Tyr Tyr Val Asp Glu His Gly Thr Arg Leu Ser Gly Asn 200 Met Phe Ser Thr Gly Ser Gly Asn Thr Tyr Ala Tyr Gly Val Met Asp 215 Ser Gly Tyr Arg Pro Asn Leu Ser Pro Glu Glu Ala Tyr Asp Leu Gly 235 Arg Arg Leu Leu Met Pro Leu Thr Glu Thr Ala Ile Leu Glu Ala 245 250

Leu Ser Ile Cys Thr Thr 260

<210> 523

<211> 110

<212> PRT

<213> Homo sapiens

<400> 523

Thr Arg Arg Thr Cys Asp Phe Thr Val Ile Leu Leu Pro Ala Arg Ala 1 5 10 15

His Leu Ala Met Ala Met Phe Ala Leu Asn Gly Gly Glu Ser Leu Ser

526

20 25 30

Leu Leu Asp Gln Ile Leu Leu His Tyr Tyr Thr Ser Thr Leu Phe Ile 35 40 45

Trp Gly Trp Ala Gly Ser Asp Ser Ser Leu Val Val Gln Leu Pro Asp
50 60

Tyr Cys Pro Ile Leu Leu Glu Ala His Val Cys Gln Gly Val Val Cys 65 70 75 80

Thr Ala Val Phe Gly Thr Ser Ser Leu Phe Ser Ala Ile Ser Phe Pro 85 90 95

Tyr Leu Ser Phe Ser Val Asp Phe Ile His His Arg Thr Glu 100 105 110

<210> 524

<211> 53

<212> PRT

<213> Homo sapiens

<400> 524

Leu Glu Lys Glu Glu Tyr Ala Thr Glu Thr Val Cys Ser Leu Gln Ser 1 5 10 15

Leu Lys Cys Leu Leu Ser Gly Leu Gly Val Cys Leu Pro Cys Ser Arg 20 25 30

Leu Ser Ala Ser Gly Thr Val Val Gln Tyr Ser Gly Thr Ala Gln Leu 35 40 45

His Phe Ser Ala Arg 50

<210> 525

<211> 205

<212> PRT

<213> Homo sapiens

<400> 525

Arg Ser Cys Ser Gly Cys Ala Arg Ser Gly Leu Arg Arg Glu Val Pro 1 5 10 15

Arg Gln Arg Glu Ala Pro Pro Pro Pro Pro Arg Ser Val Leu His Leu 20 25 30

527

 Ser Ala Thr Leu Ala Gly Ala Ala Ala Ala Ala Arg Gly Thr Leu Asn Met

 35
 40
 40
 45
 45
 Leu Asn Met

 Ser Gly Ile Ala Leu Ser Arg 50
 Leu Ala Gln Glu Arg Lys Ala Trp Arg
 Lys Asp His Pro Phe Gly Phe Val Ala Val Pro Thr Lys Asn Pro Asp
 Asp 75
 80

 Gly Thr Met Asn Leu Met Asn Trp Glu Cys Ala Ile Pro Gly Lys Lys
 90
 95

 Gly Thr Pro Trp Glu Gly Gly Leu Phe Lys Leu Arg Met Leu Phe Lys
 100

Asp Asp Tyr Pro Ser Ser Pro Pro Lys Cys Lys Phe Glu Pro Pro Leu 115 120 125

Phe His Pro Asn Val Tyr Pro Ser Gly Thr Val Cys Leu Ser Ile Leu 130 135 140

Glu Glu Asp Lys Asp Trp Arg Pro Ala Ile Thr Ile Lys Gln Ile Leu 145 150 155 160

Leu Gly Ile Gln Glu Leu Leu Asn Glu Pro Asn Ile Gln Asp Pro Ala 165 170 175

Gln Ala Glu Ala Tyr Thr Ile Tyr Cys Gln Asn Arg Val Glu Tyr Glu 180 185 190

Lys Arg Val Arg Ala Gln Ala Lys Lys Phe Ala Pro Ser 195 200 205

<210> 526

<211> 90

<212> PRT

<213> Homo sapiens

<400> 526

Phe Gly Arg Ala Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln
1 5 10 15

Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ala Leu Tyr 20 25 30

Gly Arg Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu 35 40 45

Thr Glu Leu Val Thr Lys Gly Arg Val Pro Tyr Pro Gly Met Asn Asn

528

50 55 60 Arg Glu Val Leu Glu Gln Val Glu Arg Gly Tyr Arg Met Pro Cys Pro Gln Thr Ala Pro Ser Leu Cys Met Ser Ser <210> 527 <211> 479 <212> PRT <213> Homo sapiens <400> 527 Ala Trp Ser Ile Met Ala Asp Met Gln Asn Leu Val Glu Arg Leu Glu Arg Ala Val Gly Arg Leu Glu Ala Val Ser His Thr Ser Asp Met His 25 Arg Gly Tyr Ala Asp Ser Pro Ser Lys Ala Gly Ala Ala Pro Tyr Val 35 40 Gln Ala Phe Asp Ser Leu Leu Ala Gly Pro Val Ala Glu Tyr Leu Lys Ile Ser Lys Glu Ile Gly Gly Asp Val Gln Lys His Ala Glu Met Val His Thr Gly Leu Lys Leu Glu Arg Ala Leu Leu Val Thr Ala Ser Gln Cys Gln Gln Pro Ala Glu Asn Lys Leu Ser Asp Leu Leu Ala Pro Ile 105 Ser Glu Gln Ile Lys Glu Val Ile Thr Phe Arg Glu Lys Asn Arg Gly 115 120 125 Ser Lys Leu Phe Asn His Leu Ser Ala Val Ser Glu Ser Ile Gln Ala Leu Gly Trp Val Ala Met Ala Pro Lys Pro Gly Pro Tyr Val Lys Glu 155 Met Asn Asp Ala Ala Met Phe Tyr Thr Asn Arg Val Leu Lys Glu Tyr 165 170

Lys Asp Val Asp Lys Lys His Val Asp Trp Val Lys Ala Tyr Leu Ser

185

Ile	Trp	Thr 195	Glu	Leu	Gln	Ala	туг 200	Ile	Lys	Glu	Phe	His 205	Thr	Thr	Gly
Leu	Ala 210	Trp	Ser	Lys	Thr	Gly 215	Pro	Val	Ala	Lys	Glu 220	Leu	Ser	Gly	Leu
Pro 225	Ser	Gly	Pro	Ser	Ala 230	Gly	Ser	Gly	Pro	Pro 235	Pro	Pro	Pro	Pro	Gly 240
Pro	Pro	Pro	Pro	Pro 245	Val	Ser	Thr	Ser	Ser 250	Gly	Ser	Asp	Glu	Ser 255	Ala
Ser	Arg	Ser	Ala 260	Leu	Phe	Ala	Gln	Ile 265	Asn	Gln	Gly	Glu	Ser 270	Ile	Thr
His	Ala	Leu 275	Lys	His	Val	Ser	Asp 280	Asp	Met	Lys	Thr	His 285	Lys	Asn	Pro
Ala	Leu 290	Lys	Ala	Gln	Ser	Gly 295	Pro	Val	Arg	Ser	Gly 300	Pro	Lys	Pro	Phe
Ser 305	Ala	Pro	Lys	Pro	Gln 310	Thr	Ser	Pro	Ser	Pro 315	Lys	Arg	Ala	Thr	Lys 320
Lys	Glu	Pro	Ala	Val 325	Leu	Glu	Leu	Glu	Gly 330	Lys	Lys	Trp	Arg	Val 335	Glu
			340					345					Glu 350		
		355					360					365	Gln		
	370					375					380		Leu		
385					390					395			Ser		400
				405					410				Ile	415	
			420					425					Asp 430		
		435					440					445			
Gly	Gly 450	Asp	Phe	Asn	Glu	Phe 455	Pro	Val	Pro	Glu	Gln 460		Lys	Thr	Let

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Trp Asn Gly Gln Lys Leu Val Thr Thr Val Thr Glu Ile Ala Gly
                                        475
465
                   470
<210> 528
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<400> 528
Asn His Xaa Arg Thr Arg Asp Gln Glu Ala Pro Xaa Asp Val Gln Val
 1
                                     10
Arg Pro Glu Asp Thr Pro Ser Asp Leu Ser Val Ser Asn Ser Ser Val
                                 25
Ile Leu Glu Asn Thr Met Glu Asp His Ala Ala Glu Ala Ser Gly Lys
         35
                             40
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Pro	Leu 50	Gly	Glu	Ile	Ser	Val 55	Pro	Leu	Asp	Ser	Ser 60	Leu	Leu	Cys	Thi
Leu 65	Ser	Ser	Glu	Ser	His 70	Gln	Glu	Ala	Ala	Ser 75	Asn	Glu	Asn	Asp	Ly:
Lys	Xaa	Gly	Asn	Tyr 85	Lys	Ser	Met	Leu	Arg 90	Pro	Glu	Val	Gly	Thr 95	Thi
Ser	Gln	Asp	Ser 100	Ala	Leu	Leu	Asp	Gln 105	Glu	Leu	Tyr	Asn	Ser 110	Phe	His
Phe	Trp	Arg 115	Thr	Pro	Leu	Pro	Glu 120	Ile	Asp	Leu	Asp	11e 125	Glu	Leu	Glu
Gln	Asn 130	Ser	Gly	Gly	Lys	Pro 135	Ser	Pro	Glu	Gly	Pro 140	Glu	Glu	Glu	Sei
Glu 145	Gly	Pro	Val	Pro	Ser 150	Ser	Pro	Asn	Ile	Thr 155	Met	Ala	Thr	Arg	Lys 160
Glu	Leu	Glu	Glu	Met 165	Ile	Glu	Asn	Leu	Glu 170	Pro	His	Ile	Asp	Asp 175	Pro
Asp	Val	Lys	Ala 180	Gln	Val	Glu	Val	Leu 185	Ser	Ala	Ala	Leu	Arg 190	Xaa	Sei
Ser	Leu	Asp 195	Ala	His	Glu	Glu	Thr 200	Ile	Ser	Ile	Glu	Lys 205	Arg	Ser	Asp
Leu	Gln 210	Asp	Glu	Leu	Asp	Ile 215	Asn	Glu	Leu	Pro	Asn 220	Суз	Lys	Ile	Ası
Gln 225	Glu	Asp	Ser	Val	Pro 230	Leu	Ile	Ser	Asp	Ala 235	Val	Glu	Asn	Met	As ₁
Ser	Thr	Leu	His	Tyr 245	Ile	His	Xaa	Asp	Ser 250	Asp	Leu	Ser	Asn	Asn 255	Sei
Ser	Phe	Ser	Pro 260	Asp	Glu	Glu	Arg	Arg 265	Thr	Lys	Val	Gln	Asp 270	Val	Va]
Pro	Gln	Ala 275	Leu	Leu	Asp	Gln	Tyr 280	Leu	Ser	Met	Thr	Asp 285	Pro	Ser	Arg
Ala	Gln 290	Thr	Val	Asp	Thr	Glu 295	Ile	Ala	Lys	His	Cys 300	Ala	Tyr	Ser	Leu
Pro 305	Gly	Val	Ala	Leu	Thr 310	Leu	Gly	Arg	Gln	Asn 315	Trp	His	Cys	Leu	Arç 320

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532

PCT/US00/05918

Glu Thr Tyr Xaa Thr Leu Ala Ser Asp Met Gln Trp Lys Val Arg Arg 325 Thr Leu Ala Phe Ser Ile His Glu Leu Ala Val Ile Leu Gly Asp Gln Leu Thr Ala Ala Asp Leu Val Pro Ile Phe Asn Gly Phe Leu Lys Asp Leu Asp Glu Val Arg Ile Gly Val Leu Lys His Leu His Asp Phe Leu 370 375 Lys Leu Leu His Ile Asp Lys Arg Arg Glu Tyr Leu Tyr Gln Leu Gln 390 395 Glu Phe Leu Val Thr Asp Asn Ser Arg Asn Trp Arg Phe Arg Ala Glu 410 Leu Ala Glu Gln Leu Ile Leu Leu Glu Leu Tyr Ser Pro Arg Asp 425 420 Val Tyr Asp Tyr Leu Arg Pro Ile Ala Leu Asn Leu Cys Ala Asp Lys 440 Val Ser Ser Val Arg Trp Ile Ser Tyr Lys Leu Val Ser Glu Met Val 455 460 Lys Lys Leu His Ala Ala Thr Pro Pro Thr Phe Gly Val Asp Leu Ile 470 Asn Glu Leu Val Glu Asn Phe Gly Arg Cys Pro Lys Trp Ser Gly Arg 490 485 Gln Ala Phe Val Phe Val Cys Gln Thr Val Ile Glu Asp Asp Cys Leu 500 Pro Met Asp Gln Phe Ala Val His Leu Met Pro His Leu Leu Thr Leu 520 Ala Asn Asp Arg Val Pro Asn Val Arg Val Leu Leu Ala Lys Thr Leu 535 Arg Gln Thr Leu Leu Glu Lys Asp Tyr Phe Leu Ala Ser Ala Ser Cys 545 550 His Gln Glu Ala Val Glu Gln Thr Ile Met Ala Leu Gln Met Asp Arg 565 570 Asp Ser Asp Val Lys Tyr Phe Ala Ser Ile His Pro Ala Ser Thr Lys

533

Ile Ser Glu Asp Ala Met Ser Thr Ala Ser Ser Thr Tyr
595 600 605

<210> 529

<211> 179

<212> PRT

<213> Homo sapiens

<400> 529

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser 1 $$ 10 $$ 15

Thr His Ala Ser Glu Leu Gly Thr Ser Leu Ser Ala Met Arg Phe Leu 20 25 30

Ala Ala Thr Phe Leu Leu Leu Ala Leu Ser Thr Ala Ala Gln Ala Glu 35 40 45

Pro Val Gln Phe Lys Asp Cys Gly Ser Val Asp Gly Val Ile Lys Glu 50 55 60

Val Asn Val Ser Pro Cys Pro Thr Gln Pro Cys Gln Leu Ser Lys Gly 65 70 75 80

Gln Ser Tyr Ser Val Asn Val Thr Phe Thr Ser Asn Ile Gln Ser Lys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ser Ser Lys Ala Val Val His Gly Ile Leu Met Gly Val Pro Val Pro 100 105 110

Phe Pro Ile Pro Glu Pro Asp Gly Cys Lys Ser Gly Ile Asn Cys Pro 115 120 125

Ile Gln Lys Asp Lys Thr Tyr Ser Tyr Leu Asn Lys Leu Pro Val Lys 130 135 140

Ser Glu Tyr Pro Ser Ile Lys Leu Val Val Glu Trp Gln Leu Gln Asp 145 150 155 160

Asp Lys Asn Gln Ser Leu Phe Cys Trp Glu Ile Pro Val Gln Ile Val 165 170 175

Ser His Leu

<210> 530

<211> 168

534

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<210> 531

<211> 705

<212> PRT

<213> Homo sapiens

<400> 531

Glu Pro Arg Ala Arg Ala Thr Arg Arg Gly Met Ala Ala Thr Gly Thr

WO 00/55180

_				,					10					13	
Ala	Ala	Ala	Ala 20	Ala	Thr	Gly	Arg	Leu 25	Leu	Leu	Leu	Leu	Leu 30	Val	Gly
Leu	Thr	Ala 35	Pro	Ala	Leu	Ala	Leu 40	Ala	Gly	Tyr	Ile	Glu 45	Ala	Leu	Ala
Ala	Asn 50	Ala	Gly	Thr	Gly	Phe 55	Ala	Val	Ala	Glu	Pro 60	Gln	Ile	Ala	Met
Phe 65	Cys	Gly	Lys	Leu	Asn 70	Met	His	Val	Asn	Ile 75	Gln	Thr	Gly	Lys	Trp 80
Glu	Pro	Asp	Pro	Thr 85	Gly	Thr	Lys	Ser	Cys 90	Phe	Glu	Thr	Lys	Glu 95	Glu
Val	Leu	Gln	Tyr 100	Cys	Gln	Glu	Met	Tyr 105	Pró	Glu	Leu	Gln	Ile 110	Thr	Asn
Val	Met	Glu 115	Ala	Asn	Gln	Arg	Val 120	Ser	Ile	Asp	Asn	Trp 125	Суз	Arg	Arg
Asp	Lys 130	Lys	Gln	Cys	Lys	Ser 135	Arg	Phe	Val	Thr	Pro 140	Phe	Lys	Cys	Leu
Val 145	Gly	Glu	Phe	Val	Ser 150	Asp	Val	Leu	Leu	Val 155	Pro	Glu	Lys	Cys	Gln 160
			Lys	165					170					175	
			Val 180	_	•			185					190		
	•	195	Met				200			-		205		_	
Glu	Tyr 210	Val	Cys	Cys	Pro	Gln 215	Thr	Lys	Ile	Ile	Gly 220	Ser	Val	Ser	Lys
Glu 225	Glu	Glu	Glu	Glu	Asp 230	Glu	Glu	Glu	Glu	Glu 235	Glu	Glu	Asp	Glu	Glu 240
	_	-	Asp	245	-	-			250					255	
	•		Thr 260					265		-	-		270		
Glu	Gly	Glu	Glu	Val	Val	Glu	Asp	Arg	Asp	Tyr	Tyr	Tyr	Asp	Thr	Phe

536

		275					280					285			
Lys	Gly 290	Asp	Asp	Tyr	Asn	Glu 295	Glu	Asn	Pro	Thr	Glu 300	Pro	Gly	Ser	Asp
Gly 305	Thr	Met	Ser	Asp	Lys 310	Glu	Ile	Thr	His	Asp 315	Val	Lys	Val	Pro	Pro 320
Thr	Pro	Leu	Pro	Thr 325	Asn	Asp	Val	Asp	Val 330	Tyr	Phe	Glu	Thr	Ser 335	Ala
Asp	Asp	Asn	Glu 340	His	Ala	Arg	Phe	Gln 345	Lys	Ala	Lys	Glu	Gln 350	Leu	Glu
Ile	Arg	His 355	Arg	Asn	Arg	Met	Asp 360	Arg	Val	Lys	Lys	Glu 365	Trp	Glu	Glu
Ala	Glu 370	Leu	Gln	Ala	Lys	Asn 375	Leu	Pro	Lys	Ala	Glu 380	Arg	Gln	Thr	Leu
Ile 385	Gln	His	Phe	Gln	Ala 390	Met	Val	Lys	Ala	Leu 395	Glu	Lys	Glu	Ala	Ala 400
Ser	Glu	Lys	Gln	Gln 405	Leu	Val	Glu	Thr	His 410	Leu	Ala	Arg	Val	Glu 415	Ala
Met	Leu	Asn	Asp 420	Arg	Arg	Arg	Met	Ala 425	Leu	Glu	Asn	Tyr	Leu 430	Ala	Ala
Leu	Gln	Ser 435	Asp	Pro	Pro	Arg	Pro 440	His	Arg	Ile	Leu	Gln 445	Ala	Leu	Arg
Arg	Tyr 450	Val	Arg	Ala	Glu	Asn 455	Lys	Asp	Arg	Leu	His 460	Thr	Ile	Arg	His
Tyr 465	Gln	His	Val	Leu	Ala 470	Val	Asp	Pro	Glu	Lys 475	Ala	Ala	Gln	Met	Lys 480
Ser	Gln	Val	Met	Thr 485	His			Val				Arg	-		
Ser	Leu	Ser	Leu 500	Leu	Tyr	Lys	Val	Pro 505	Tyr	Val	Ala	Gln	Glu 510	Ile	Glr
Glu	Glu	Ile 515	Asp	Glu	Leu	Leu	Gln 520	Glu	Gln	Arg	Ala	Asp 525	Met	Asp	Gln
Phe	Thr 530	Ala	Ser	Ile	Ser	Glu 535	Thr	Pro	Val	Asp	Val 540	Arg	Val	Ser	Ser
Glu	Glu	Ser	Glu	Glu	Ile	Pro	Pro	Phe	His	Pro	Phe	His	Pro	Phe	Pro

537

545 560 550 555 Ala Leu Pro Glu Asn Glu Gly Ser Gly Val Gly Glu Gln Asp Gly Gly 565 570 Leu Ile Gly Ala Glu Glu Lys Val Ile Asn Ser Lys Asn Lys Val Asp 580 585 Glu Asn Met Val Ile Asp Glu Thr Leu Asp Val Lys Glu Met Ile Phe 600 Asn Ala Glu Arg Val Gly Gly Leu Glu Glu Glu Arg Glu Ser Val Gly 615 Pro Leu Arg Glu Asp Phe Ser Leu Ser Ser Ser Ala Leu Ile Gly Leu Leu Val Ile Ala Val Ala Ile Ala Thr Val Ile Val Ile Ser Leu Val 645 650 Met Leu Arg Lys Arg Gln Tyr Gly Thr Ile Ser His Gly Ile Val Glu 660 665 Val Asp Pro Met Leu Thr Pro Glu Glu Arg His Leu Asn Lys Met Gln 680 Asn His Gly Tyr Glu Asn Pro Thr Tyr Lys Tyr Leu Glu Gln Met Gln 695 Ile 705 <210> 532 <211> 82 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (51) <223> Xaa equals any of the naturally occurring L-amino acids <400> 532 Ser Arg Leu Pro Glu Pro Pro Gly Phe Leu Val Lys Phe Ala Glu Glu 10 Asp Leu Ser Val Leu Thr Tyr Met Leu His Arg Thr Asn Glu Ser Leu

20

538

Arg Gln Ser Phe Phe Thr Gln Gln Arg Leu Ile Phe Phe His Pro Leu 35 40 45

Leu Gly Xaa Lys His Ser Cys Pro Ala Cys Leu His Phe Lys His Asp 50 55 60

Gln Asn Cys Ala Ser Leu Gln Ile Thr Thr Asp Gln Gln Trp Gly Pro 65 70 75 80

Ala Ser

<210> 533

<211> 283

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 533

Lys Arg Phe Leu Lys Arg Ile Arg Asp Leu Gly Glu Gly His Phe Gly
1 5 10 15

Lys Val Glu Leu Cys Arg Tyr Asp Pro Glu Xaa Xaa Asn Thr Gly Glu 20 25 30

Gln Val Ala Val Lys Ser Leu Lys Pro Glu Ser Gly Gly Asn His Ile 35 40 45

Ala Asp Leu Lys Lys Glu Ile Glu Ile Leu Arg Asn Leu Tyr His Glu 50 60

Asn Ile Val Lys Tyr Lys Gly Ile Cys Thr Glu Asp Gly Gly Asn Gly 65 70 75 80

Ile Lys Leu Ile Met Glu Phe Leu Pro Ser Gly Ser Leu Lys Glu Tyr 85 90 95

Leu Pro Lys Asn Lys Asn Lys Ile Asn Leu Lys Gln Gln Leu Lys Tyr 100 105 110

Ala Val Gln Ile Cys Lys Gly Met Asp Tyr Leu Gly Ser Arg Gln Tyr 115 120 125

Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Glu Ser Glu His 130 135 140

Gln Val Lys Ile Gly Asp Phe Gly Leu Thr Lys Ala Ile Glu Thr Asp 145 150 155 160

Lys Glu Tyr Tyr Thr Val Lys Asp Asp Arg Asp Ser Pro Val Phe Trp 165 170 175

Tyr Ala Pro Glu Cys Leu Met Gln Ser Lys Phe Tyr Ile Ala Ser Asp 180 185 190

Val Trp Ser Phe Gly Val Thr Leu His Glu Leu Leu Thr Tyr Cys Asp 195 200 205

Ser Asp Ser Ser Pro Met Ala Leu Phe Leu Lys Met Ile Gly Pro Thr 210 215 220

His Gly Gln Met Thr Val Thr Arg Leu Val Asn Thr Leu Lys Glu Gly 225 230 235 240

Lys Arg Leu Pro Cys Pro Pro Asn Cys Pro Asp Glu Val Tyr Gln Leu 245 250 255

Met Arg Lys Cys Trp Glu Phe Gln Pro Ser Asn Arg Thr Ser Phe Gln 260 265 270

Asn Leu Ile Glu Gly Phe Glu Ala Leu Leu Lys 275 280

<210> 534

<211> 246

<212> PRT

<213> Homo sapiens

<400> 534

Phe Arg Ala Glu Arg Glu Glu Asn Phe Phe Leu Ala Trp Ala Pro Cys
1 5 10 15

Arg Ser Val Cys Gln Pro Ser Ser Pro Ala Tyr Gln Cys Arg Ala Leu 20 25 30

Pro Thr Pro Pro Pro Ala Pro Pro Val Ser Ala Met Ala Lys Ala Tyr 35 40

Asp His Leu Phe Lys Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys

PCT/US00/05918 WO 00/55180

540

55 60 50 Thr Cys Leu Ile Ile Arg Phe Ala Glu Asp Asn Phe Asn Asn Thr Tyr 75 65 70 Ile Ser Thr Ile Gly Ile Asp Phe Lys Ile Arg Thr Val Asp Ile Glu 85 90 Gly Lys Lys Ile Lys Leu Gln Val Trp Asp Thr Ala Gly Gln Glu Arg 105 Phe Lys Thr Ile Thr Thr Ala Tyr Tyr Arg Gly Ala Met Gly Ile Ile 120 Leu Val Tyr Asp Ile Thr Asp Glu Lys Ser Phe Glu Asn Ile Gln Asn 135 Trp Met Lys Ser Ile Lys Glu Asn Ala Ser Ala Gly Val Glu Arg Leu Leu Leu Gly Asn Lys Cys Asp Met Glu Ala Lys Arg Lys Val Gln Lys 170 Glu Gln Ala Asp Lys Leu Ala Arg Glu His Gly Ile Arg Phe Phe Glu 180 185 Thr Ser Ala Lys Ser Ser Met Asn Val Asp Glu Ala Phe Ser Ser Leu 200 Ala Arg Asp Ile Leu Leu Lys Ser Gly Gly Arg Arg Ser Gly Asn Gly 215 210 Asn Lys Pro Pro Ser Thr Asp Leu Lys Thr Cys Asp Lys Lys Asn Thr Asn Lys Cys Ser Leu Gly <210> 535 <211> 276 <212> PRT <213> Homo sapiens

Pro Lys Val Phe Phe Asn Ile Leu Glu Glu Ala Arg Glu Leu Ala Leu

Gln Gln Glu Glu Gly Lys Thr Val Met Tyr Thr Ala Val Gly Ser Glu 25

5

20

10

<400> 535

541

Trp Arg Pro Phe Gly Tyr Pro Arg Arg Gln Pro Leu Asn Ser Val 40 Val Leu Gln Gln Gly Leu Ala Asp Arg Ile Val Arg Asp Val Gln Glu Phe Ile Asp Asn Pro Lys Trp Tyr Thr Asp Arg Gly Ile Pro Tyr Arg 70 Arg Gly Tyr Leu Leu Tyr Gly Pro Pro Gly Cys Gly Lys Ser Ser Phe Ile Thr Ala Leu Ala Gly Glu Leu Glu His Ser Ile Cys Leu Leu Ser Leu Thr Asp Ser Ser Leu Ser Asp Asp Arg Leu Asn His Leu Leu Ser 120 115 Val Ala Pro Gln Gln Ser Leu Val Leu Leu Glu Asp Val Asp Ala Ala 135 Phe Leu Ser Arg Asp Leu Ala Val Glu Asn Pro Val Lys Tyr Gln Gly 145 150 155 Leu Gly Arg Leu Thr Phe Ser Gly Leu Leu Asn Ala Leu Asp Gly Val 170 Ala Ser Thr Glu Ala Arg Ile Val Phe Met Thr Thr Asn His Val Asp 185 Arg Leu Asp Pro Ala Leu Ile Arg Pro Gly Arg Val Asp Leu Lys Glu . 200 195 . Tyr Val Gly Tyr Cys Ser His Trp Gln Leu Thr Gln Met Phe Gln Arg 215 Phe Tyr Pro Gly Gln Ala Pro Ser Leu Ala Glu Asn Phe Ala Glu His 230 235 Val Leu Arg Ala Thr Asn Gln Ile Ser Pro Ala Gln Val Gln Gly Tyr Phe Met Leu Tyr Lys Asn Asp Pro Val Gly Ala Ile His Asn Ala Glu

265

Ser Leu Arg Arg 275

542

<210> 536

<211> 72

<212> PRT

<213> Homo sapiens

<400> 536

Ile Lys Cys Ser Thr Met Cys Asn Asp Cys Lys Phe Ser Lys Ile Leu 1 5 10 15

Gln Pro Phe His Glu Cys Phe Thr Ile Gln His Ser Ile Tyr Tyr Lys 20 25 30

Thr Pro Phe Leu Tyr Pro Tyr Thr Ser Gly Val Ala Val Asn Ile Tyr 35 40 45

Tyr Asp Ile Tyr Phe Asn Gln Asn Val Thr His Ile Lys Cys Leu Phe 50 55 60

Phe Lys Met Asn Val Leu Cys Phe 65 70

<210> 537

<211> 241

<212> PRT

<213> Homo sapiens

<400> 537

Ala Tyr Ile Ser Cys Pro Ser Ser Thr Val Asn Lys Trp His Ala Cys
1 10 15

Val Leu Trp Pro Phe Tyr Leu Glu Tyr Ser Leu Leu Ala Glu Phe Thr 20 25 30

Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val Gln Pro Ser Tyr 35 40 45

Arg Ser Ala Leu Met Trp Phe Gly Val Ile Phe Ile Arg His Gly Leu 50 55 60

Tyr Gln Asp Gly Val Phe Lys Phe Thr Val Tyr Ile Pro Asp Asn Tyr 65 70 75 80

Pro Asp Gly Asp Cys Pro Arg Leu Val Phe Asp Ile Pro Val Phe His 85 90 95

Pro Leu Val Asp Pro Thr Ser Gly Glu Leu Asp Val Lys Arg Ala Phe 100 105 110

Ala Lys Trp Arg Arg Asn His Asn His Ile Trp Gln Val Leu Met Tyr

115 120 125 Ala Arg Arg Val Phe Tyr Lys Ile Asp Thr Ala Ser Pro Leu Asn Pro 135 140 Glu Ala Ala Val Leu Tyr Glu Lys Asp Ile Gln Leu Phe Lys Ser Lys 150 Val Val Asp Ser Val Lys Val Cys Thr Ala Arg Leu Phe Asp Gln Pro 170 Lys Ile Glu Asp Pro Tyr Ala Ile Ser Phe Ser Pro Trp Asn Pro Ser 185 180 Val His Asp Glu Ala Arg Glu Lys Met Leu Thr Gln Lys Lys Pro 195 200 Glu Glu Gln His Asn Lys Ser Val His Val Ala Gly Leu Ser Trp Val 215 Lys Pro Gly Ser Val Gln Pro Phe Ser Lys Glu Glu Lys Thr Val Ala 230 235 Thr <210> 538 <211> 47 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (23) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (36)

544

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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids
Phe Tyr Met Ala Val Ile His Gly Val Glu Ala Val Arg Lys Glu Ser
Ser Thr Ser Xaa Leu Ser Xaa Val Ser Ser Asp Cys Xaa Glu Lys Trp
Asp Cys Leu Xaa His Gly Ile Cys Gly Leu Lys Ser Ser Pro Xaa
                              40
<210> 539
<211> 74
<212> PRT
<213> Homo sapiens
<220>
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<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 539
Xaa Val Phe Val Asn Lys Cys Ile Cys Ile Thr Gln Ser Cys Xaa Ile
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15 10 Gln Asn Tyr Lys Gln Lys Leu Cys Lys Thr Lys Leu Lys Ala Ala Cys Leu Leu Phe Phe Val Pro Cys Pro Ile Thr Thr Ser Xaa Ser Lys Asn 40 Glu Met Leu Leu Xaa Xaa Leu Met Phe Phe Arg Phe Glu Gly Phe 55 Thr Thr Ser Thr Pro Lys Thr Tyr Phe Ser 70 <210> 540 <211> 195 <212> PRT <213> Homo sapiens <400> 540 Ser Thr Ala Gln Gly Asn Leu Leu Thr Val Phe Ile Gln Pro Arg Ala 5 Ser Met Ser Gly Gly Lys Tyr Val Asp Ser Glu Gly His Leu Tyr Thr Val Pro Ile Arg Glu Gln Gly Asn Ile Tyr Lys Pro Asn Asn Lys Ala 40 Met Ala Asp Glu Leu Ser Glu Lys Gln Val Tyr Asp Ala His Thr Lys Glu Ile Asp Leu Val Asn Arg Asp Pro Lys His Leu Asn Asp Asp Val 75 Val Lys Ile Asp Phe Glu Asp Val Ile Ala Glu Pro Glu Gly Thr His 90 Ser Phe Asp Gly Ile Trp Lys Ala Ser Phe Thr Thr Phe Thr Val Thr Lys Tyr Trp Phe Tyr Arg Leu Leu Ser Ala Leu Phe Gly Ile Pro Met 120 Ala Leu Ile Trp Gly Ile Tyr Phe Ala Ile Leu Ser Phe Leu His Ile 130 135 Trp Ala Val Val Pro Cys Ile Lys Ser Phe Leu Ile Glu Ile Gln Cys 150 155

546

Ile Ser Arg Val Tyr Ser Ile Tyr Val His Thr Val Cys Asp Pro Leu 165 170 175

Phe Glu Ala Val Gly Lys Ile Phe Ser Asn Val Arg Ile Asn Leu Gln 180 185 190

Lys Glu Ile 195

<210> 541

<211> 233

<212> PRT

<213> Homo sapiens

<400> 541

Leu Pro Leu Glu Val Ala Met Ala Gly Leu Arg Arg Glu Tyr Ala Phe
1 5 10 15

Lys Ala Ile Asn Gln Gly Gly Leu Thr Ser Val Ala Val Arg Gly Lys 20 25 30

Asp Cys Ala Val Ile Val Thr Gln Lys Lys Val Pro Asp Lys Leu Leu 35 40 45

Asp Ser Ser Thr Val Thr His Leu Phe Lys Ile Thr Glu Asn Ile Gly 50 55 60

Cys Val Met Thr Gly Met Thr Ala Asp Ser Arg Ser Gln Val Gln Arg 65 70 75 80

Ala Arg Tyr Glu Ala Ala Asn Trp Lys Tyr Lys Tyr Gly Tyr Glu Ile $85 \hspace{1cm} 90 \hspace{1cm} 95$

Pro Val Asp Met Leu Cys Lys Arg Ile Ala Asp Ile Ser Gln Val Tyr 100 105 110

Thr Gln Asn Ala Glu Met Arg Pro Leu Gly Cys Cys Met Ile Leu Ile 115 120 125

Gly Ile Asp Glu Glu Gln Gly Pro Gln Val Tyr Lys Cys Asp Pro Ala 130 135 140

Gly Tyr Tyr Cys Gly Phe Lys Ala Thr Ala Ala Gly Val Lys Gln Thr 145 150 155 160

Glu Ser Thr Ser Phe Leu Glu Lys Lys Val Lys Lys Lys Phe Asp Trp 165 170 175

547

Thr Phe Glu Gln Thr Val Glu Thr Ala Ile Thr Cys Leu Ser Thr Val 180 185 Leu Ser Ile Asp Phe Lys Pro Ser Glu Ile Glu Val Gly Val Val Thr 195 200 Val Glu Asn Pro Lys Phe Arg Ile Leu Thr Glu Ala Glu Ile Asp Ala 215 His Leu Val Ala Leu Ala Glu Arg Asp 230 <210> 542 <211> 235 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (123) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (214) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (215) <223> Xaa equals any of the naturally occurring L-amino acids <400> 542 Thr Leu Gln Pro Pro Thr Gly Ile Pro Ser Thr Leu Pro Leu Cys Thr 5 10 Ile Ser Thr Leu Trp Ala Pro Thr Lys Tyr Leu Ser Ala Ile Trp Ala Val Gly Gln Ile Ile Gln Asp Tyr Asp Ser Asp Lys Met Phe Pro Ala Leu Gly Phe Gly Ala Gln Leu Pro Pro Asp Trp Lys Val Ser His Glu 50 60 Phe Ala Ile Asn Phe Asn Pro Thr Asn Pro Phe Cys Ser Gly Val Asp

Gly Ile Ala Gln Ala Tyr Ser Ala Cys Leu Pro His Ile Arg Phe Tyr

548

90 95 85 Gly Pro Thr Asn Phe Ser Pro Ile Val Asn His Val Ala Arg Phe Ala 100 105 110 Ala Gln Ala Thr Gln Gln Arg Thr Ala Thr Xaa Tyr Phe Ile Leu Leu 120 Ile Ile Thr Asp Gly Val Ile Ser Asp Met Glu Glu Thr Arg His Ala 135 Gly Cys Arg Leu Pro Ser Cys Pro Cys Pro Ser Ser Ser Trp Ala Trp 150 155 Ala Met Arg Thr Ser Leu Pro Trp Ser Ser Trp Met Gly Thr Ala Ala 165 170 Cys Cys Ala Ser His Thr Gly Glu Gly Gly Ser Pro Arg Tyr Cys Gly Ile Arg Ser Leu Phe Glu Ile Ser Ala Lys Gln Gln Lys Arg Thr Trp 200 · 205 Pro Lys Leu Cys Trp Xaa Xaa Trp Pro Gln Gln Leu Leu His Tyr Phe 215 Lys His Lys Lys Leu Ala Pro Gln Gln Ile Arg 230 <210> 543 <211> 73 <212> PRT <213> Homo sapiens <400> 543 Lys His Tyr Gln Val Pro Lys Pro Ile Trp Leu Asn Gln Gln Cys Thr 5 10 15 Glu Ile Leu Val Phe Thr Ser Lys Ala Arg Glu Pro Arg Gly Gly Gly Glu Leu Glu Glu Gly Glu Ile Met Gly Arg Gly Trp Arg Leu Pro Glu 40 Leu Ala Arg Gly Pro Thr Phe Asp Asn Ser Leu Thr Lys Ser Ile Phe 50 55 Phe Phe Phe Trp Glu Gly Pro Leu

70

549

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<210> 544
<211> 102
<212> PRT
<213> Homo sapiens
<220>
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<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<220>
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<220>
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<222> (91)
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<220>
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<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 544
Ala Trp Thr Glu Ser Ile His Ser Asp His Leu Leu Ser Leu Tyr Thr
                5
                                   10
                                                         15
Glu Asn Lys Thr Ser Ser Thr His Pro Ile Arg Phe Phe Cys Leu Thr
                                                     30
            20
                                 25
Phe Lys Cys Pro Cys Trp Pro Phe Thr Ala Val Pro Arg His Gln Ala
                             40
Ser Cys His Ile Ser His Ser Lys Gly Phe Xaa Thr Ile Ser Ser Cys
    50
                         55
```

550

His Phe Leu Lys Lys Thr Ile Pro Lys Leu Lys Leu Xaa Ile Ser Val 65 70 75 80

Xaa Ser Cys Val Cys Gln Xaa Leu Gly Phe Xaa Trp Lys Val Pro Lys 85
90
95

Thr Lys Ala Thr Pro Xaa 100

<210> 545

<211> 115

<212> PRT

<213> Homo sapiens

<400> 545

Phe Arg Phe Leu Ser Asp Cys Gly Val Phe Ala Glu Gly His Ile Glu
1 5 10 15

Leu Gln Val Glu Ser Gly Val Pro Leu Gly Phe Ser Thr Met Ala Glu 20 25 30

Asp Met Glu Thr Lys Ile Lys Asn Tyr Lys Thr Ala Pro Phe Asp Ser 35 40 45

Arg Phe Pro Asn Gln Asn Gln Thr Arg Asn Cys Trp Gln Asn Tyr Leu 50 55 60

Asp Phe His Arg Cys Gln Lys Ala Met Thr Ala Lys Gly Gly Asp Ile
65 70 . 75 80

Ser Val Cys Glu Trp Tyr Gln Arg Val Tyr Gln Ser Leu Cys Pro Thr 85 90 95

Ser Trp Val Thr Asp Trp Asp Glu Gln Arg Ala Glu Gly Thr Phe Pro 100 105 110

Gly Lys Ile

115

<210> 546

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

551

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 546

Pro Ser Gly Cys Pro Ile Pro Xaa Pro Trp Xaa Ile Ser Val Val Ser 1 5 10 15

Ala Cys Xaa Met Gly Asp Pro His Pro Gln Cys Pro Ser Pro Ser Trp
20 25 30

Gly Pro Leu Thr Leu His Pro Leu Pro Phe Pro Pro His Leu Pro Gly
35 40 45

Glu Lys Leu Asp Met Gly Pro Gly Glu Gly Ser Trp Pro Glu Glu Asp 50 60

Pro Phe Pro Val Ala Leu Glu Gly Gly Gly Val Ala Gly Ala Pro Thr

His Ser Pro Ser Leu Gln Thr Pro Asn Pro Gln Ser Val Phe Glu Pro $85 \hspace{1cm} 90 \hspace{1cm} 95$

Pro Arg Ser Pro His Ala Pro Ala His Ala Pro Ser Val Asn Pro Trp 100 105 110

<210> 547

<211> 221

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (126) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (132) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (177) <223> Xaa equals any of the naturally occurring L-amino acids <400> 547 Gly Leu Ser Glu Ser Ala Pro Ser Arg Leu Val Gly Ala Gln Pro Ser 1 5 Thr Gly Val Pro Leu Val Thr Gly Tyr Thr Thr Tyr Xaa Ala His His Ser Ala Phe Ser Gln Met Val Xaa Ser Phe Tyr Tyr Gly Gly Lys Leu 40 Val Gly Gln Ala Thr Thr Cys Pro Glu Gly Cys Arg Leu Ser Leu 55 Ser Gln Pro Gly Leu Pro Gly Thr Lys Leu Tyr Gly Pro Glu Gly Leu Glu Leu Val Arg Phe Pro Pro Ala Asp Ala Ile Pro Ser Glu Arg Gln 90 Arg Gln Val Thr Arg Asn Cys Ser Gly Thr Trp Ser Ala Gly Cys Cys Cys Thr Ala Ala Gly Xaa Ala Cys Ser Ser Ser Gly Cys Xaa Arg Ala 120 Ala Cys Ser Xaa Ala Ala Thr Val Gly Val Gln Arg Gln Ala Gln Gln 130 135

553

155

Ala Gly Ala Asp Glu Val Val Gln Val Phe Asp Thr Ser Gln Phe Phe

150

145

Arg Glu Leu Gln Gln Phe Tyr Asn Ser Gln Gly Arg Leu Pro Asp Gly 170 165 Xaa Val Val Leu Cys Phe Gly Glu Glu Phe Arg Ile Trp Pro Pro Cys 185 Ala Pro Asn Ser Phe Ser Cys Arg Leu Ser Ser Cys Met Ser Gly Asn 200 Trp Gln Lys Arg Leu Gly Arg Ala Val Glu Pro Ala Leu 215 <210> 548 <211> 231 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (44) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (205) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (212) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (226) <223> Xaa equals any of the naturally occurring L-amino acids <400> 548 Lys Gly Phe Phe Pro Gln Leu Arg Arg Glu Ala Asn Leu Val Ala Thr 10 Cys Leu Pro Val Arg Ala Ser Leu Pro His Arg Leu Asn Met Leu Arg 20 Gly Pro Gly Pro Gly Leu Leu Leu Ala Val Xaa Cys Leu Gly Thr 40 45

554

Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln Ala Gln Gln 50 60

Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser Lys Pro Gly 65 70 75 80

Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln Trp Glu Arg 85 90 95

Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly Gly Ser Arg 100 105 110

Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr Cys Phe Asp 115 120 125

Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr Glu Arg Pro 130 135 140

Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala Gly Arg Gly 145 150 155 160

Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly Gln Ser 165 170 175

Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr Gly Gly Tyr 180 185 190

Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Xaa Trp Thr Cys 195 200 205

Lys Pro Ile Xaa Glu Lys Cys Leu Ile Met Leu Leu Gly Leu Leu Cys 210 220

Gly Xaa Arg Thr Trp Glu Lys 225 230

<210> 549

<211> 82

<212> PRT

<213> Homo sapiens

<400> 549

Glu Ala Gly Thr Pro Gly Ser Gln Thr Arg Ala Asp Pro Ile Val Lys 1 $$ 5 $$ 10 $$ 15

Tyr Phe Tyr Ile Phe Ser Phe Pro Gln Lys Arg Ser Leu Thr Tyr Cys 20 25 30

Phe Ile Asp Ser Leu Ala Val Arg Gly Ser Phe Pro Glu Val Gly Arg

Arg Gly Ser Gly Val Ala Val Ser Cys Leu Pro Ser Gln Val Val Thr 50 60

Leu Val Met Asp Cys Leu Ser Pro Ser Phe His Pro Gly Glu Thr Val 65 70 75 80

Gln Ile

<210> 550

<211> 113

<212> PRT

<213> Homo sapiens

<400> 550

Gly Leu Val Gly Glu Arg Thr Gln Glu Arg Gly Val Gln Glu Ser Arg

1 5 10 15

Leu Ser Glu Leu Cys Gly Val Cys Gly Trp Gln Gly Gln Pro Leu Gln
20 25 30

Pro Leu Lys Thr Leu Lys Ala Arg Asp Ser Trp Arg Arg Leu Gly Leu 35 40 45

Pro Gly Ser Ser Lys Tyr Pro Gly Ala Ser Glu Leu Pro Gly Cys 50 60

Tyr Met Ala Gln Gly Thr Gln Val Gln Gly Arg Thr Gly Lys Thr Arg 65 70 75 80

Tyr Pro Met Cys Lys Val Lys Thr Leu Gly Ser Leu Leu Asn Asp Glu 85 90 95

Glu Phe Lys Thr Val Thr Ala Leu Arg His Pro Trp Gly Gln Arg Ser 100 105 110

Ala

<210> 551

<211> 305

<212> PRT

<213> Homo sapiens

<220>

	l> S1														
	?> (3 ?> xa		male	: anı	, of	the	nati	ırall	יע מ	curi	rina	L-ar	nino	acio	is
`~	, A		1001	,	, 01	01.0			., .		- 1119				
<400)> 55	51													
Pro 1	Ala	Ile	Ala	Met 5	Ala	Arg	Gly	Lys	Ala 10	Lys	Glu	Glu	Gly	Ser 15	Trp
Lys	Lys	Phe	Ile 20	Trp	Asn	Ser	Glu	Lys 25	Lys	Glu	Phe	Leu	Gly 30	Arg	Thr
Gly	Gly	Ser 35	Trp	Phe	Lys	Ile	Leu 40	Leu	Phe	Tyr	Val	Ile 45	Phe	Tyr	Gly
Cys	Leu 50	Ala	Gly	Ile	Phe	Ile 55	Gly	Thr	Ile	Gln	Val 60	Met	Leu	Leu	Thr
Ile 65	Ser	Glu	Phe	Lys	Pro 70	Thr	туr	Gln	Asp	Arg 75	Val	Ala	Pro	Pro	Gly 80
Leu	Thr	Gln	Ile	Pro 85	Gln	Ile	Gln	Lys	Thr 90	Glu	Ile	Ser	Phe	Arg 95	Pro
Asn	Asp	Pro	Lys 100	Ser	Tyr	Glu	Ala	Туг 105	Val	Leu	Asn	Ile	Val 110	Arg	Phe
Leu	Glu	Lys 115	Tyr	Lys	Asp	Ser	Ala 120	Gln	Arg	Asp	Asp	Met 125	Ile	Phe	Glu
Asp	Cys 130	Gly	Asp	Val	Pro	Ser 135	Glu	Pro	Lys	Glu	Arg 140	Gly	Asp	Phe	Asn
His 145	Glu	Arg	Gly	Glu	Arg 150	Lys	Val	Cys	Arg	Phe 155	Lys	Leu	Glu	Trp	Leu 160
Gly	Asn	Cys	Ser	Gly 165	Leu	Asn	Asp	Glu	Thr 170	Tyr	Gly	Tyr	Lys	Glu 175	Gly
Lys	Pro	Cys	Ile 180	Ile	Ile	Lys	Leu	Asn 185	Arg	Val	Leu	Gly	Phe 190	Lys	Pro
Lys	Pro	Pro 195	Lys	Asn	Glu	Ser	Leu 200	Glu	Thr	Tyr	Pro	Val 205	Met	Lys	Tyr
Asn	Pro 210	Asn	Val	Leu	Pro	Val 215	Gln	Суѕ	Thr	Gly	Lys 220	Arg	Asp	Glu	Asp
Lys 225	Asp	ГÀа	Val	Gly	Asn 230	Val	Glu	туг	Phe	Gly 235	Leu	Gly	Asn	ser	Pro 240

Gly Phe Pro Leu Gln Tyr Tyr Pro Tyr Tyr Gly Lys Leu Leu Gln Pro 245 250 255

Lys Tyr Leu Gln Pro Leu Leu Ala Val Gln Phe Thr Asn Leu Thr Met 260 265 270

Asp Thr Glu Ile Arg Ile Glu Cys Lys Ala Tyr Gly Glu Asn Ile Gly 275 280 285

Tyr Ser Glu Lys Asp Arg Phe Gln Gly Arg Phe Xaa Val Cys Gly Ser 290 295 300

Phe 305

<210> 552

<211> 106

<212> PRT

<213> Homo sapiens

<400> 552

Ala Pro Arg Gly Cys Ser Met Pro His Arg Lys Lys Pro Phe Ile
1 5 10 15

Glu Lys Lys Lys Ala Val Ser Phe His Leu Val His Arg Ser Gln Arg 20 25 30

Asp Pro Leu Ala Ala Asp Glu Ser Ala Pro Gln Arg Val Leu Leu Pro 35 40 45

Thr Gln Lys Ile Asp Asn Glu Glu Arg Arg Ala Glu Gln Arg Lys Tyr 50 60

Gly Val Phe Phe Asp Asp Asp Tyr Asp Tyr Leu Gln His Leu Lys Glu 65 70 75 80

Pro Ser Gly Pro Ser Glu Leu Ile Pro Ser Ser Thr Phe Ser Ala His
85 90 95

Asn Arg Arg Glu Glu Lys Glu Glu Thr Leu 100 105

<210> 553

<211> 235

<212> PRT

<213> Homo sapiens

558

< 4	υ	U.	>	כ	כ	3

His Thr Leu Ser Arg Trp Thr Lys His Ser Ile Pro Arg Trp Asn Asp

Ala Arg Thr Asp Asp Thr Trp His Ser Glu Leu Asp Met Arg Lys Ile
20 25 30

Gly Gln Ala Arg Asn Thr Leu Met Asp Met Arg Leu Ser Gln Val Ser 35 40 45

Asp Ser Val Ser Gly Gln Thr Val Val Asp Pro Lys Gly Tyr Leu Thr 50 55 60

Asp Leu Asn Ser Met Ile Pro Thr His Gly Gly Asp Ile Asn Asp Ile 65 70 75 80

Lys Lys Ala Arg Leu Leu Leu Lys Ser Val Arg Glu Thr Asn Pro His 85 90 95

His Pro Pro Ala Trp Ile Ala Ser Ala Arg Leu Glu Glu Val Thr Gly
100 105 110

Lys Leu Gln Val Ala Arg Asn Leu Ile Met Lys Gly Thr Glu Met Cys 115 120 125

Pro Lys Ser Glu Asp Val Trp Leu Glu Ala Ala Arg Leu Gln Pro Gly 130 135 140

Asp Thr Ala Lys Ala Val Val Ala Gln Ala Val Arg His Leu Pro Gln 145 150 155 160

Ser Val Arg Ile Tyr Ile Arg Ala Ala Glu Leu Glu Thr Asp Ile Arg 165 170 175

Ala Lys Lys Arg Val Leu Arg Lys Ala Leu Glu His Val Pro Asn Ser 180 185 190

Val Arg Leu Trp Lys Ala Ala Val Glu Leu Glu Glu Pro Glu Asp Ala 195 200 205

Arg Ile Met Leu Ser Arg Ala Val Glu Cys Cys Pro Thr Ser Val Glu 210 215 220

Leu Trp Leu Cys Ser Gly Lys Ala Gly Asp Leu 225 230 235

<210> 554

<211> 61

<212> PRT

559

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<213> Homo sapiens
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<400> 554

Leu Trp Phe Cys His Asn Ile Arg Ile Tyr Lys His Phe Lys Ser Ile 1 5 10 15

Leu Phe Phe Cys Phe His Phe Arg Asn Ile His Val Leu Asn Lys Ser

Cys Val Leu Ile Ser Leu Leu Cys Asn Asn Leu Val Cys Leu Thr Phe 35 40 45

Leu Thr Phe Ile Ser Asn Ile Cys Phe Ile Ile Glu Gln 50 55 60

<210> 555

<211> 684

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (683)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 555

Arg Gly Lys Gly Phe Lys Glu Phe Phe Leu Gly Val Cys Gln Thr Phe 1 5 10 15

Ile Pro Cys Leu Cys Ala Glu Gly Ile Gln Leu Gln Phe Phe Cys Ser 20 25 30

Gly Ser Gly Ser Ser Pro Leu Leu Lys Asp Leu Glu Ser Met Lys Thr 35 40 45

Gly Leu Phe Phe Leu Cys Leu Leu Gly Thr Ala Ala Ala Ile Pro Thr 50 55 60

Asn Ala Arg Leu Leu Ser Asp His Ser Lys Pro Thr Ala Glu Thr Val 65 70 75 80

Ala Pro Asp Asn Thr Ala Ile Pro Ser Leu Arg Ala Glu Ala Glu Glu 85 90 95

Asn	Glu	Lys	Glu 100	Thr	Ala	Val	Ser	105	Glu	Asp	Asp	Ser	110	His	Lys
Ala	Glu	Lys 115	Ser	Ser	Val	Leu	Lys 120	Ser	Lys	Glu	Glu	Ser 125	His	Glu	Gln
Ser	Ala 130	Glu	Gln	Gly	Lys	Ser 135	Ser	Ser	Gln	Glu	Leu 140	Gly	Leu	Lys	Asp
Gln 145	Glu	Asp	Ser	Asp	Gly 150	Xaa	Leu	Ser	Val	Asn 155	Leu	Glu	Tyr	Ala	Pro 160
Thr	Glu	Gly	Thr	Leu 165	Asp	Ile	Lys	Glu	Asp 170	Met	Ser	Glu	Pro	Gln 175	Glu
Lys	Lys	Leu	Ser 180	Glu	Asn	Thr	Asp	Phe 185	Leu	Ala	Pro	Gly	Val 190	Ser	Ser
Phe	Thr	Asp 195	Ser	Asn	Gln	Gln	Glu 200	Ser	Ile	Thr	Lys	Arg 205	Glu	Glu	Asn
Gln	Glu 210	Gln	Pro	Arg	Asn	Tyr 215	Ser	His	His	Gln	Leu 220	Asn	Arg	Ser	Ser
Lys 225	His	Ser	Gln	Gly	Leu 230	Arg	Asp	Gln	Gly	Asn 235	Gln	Glu	Gln	Asp	Pro 240
Asn	Ile	Ser	Asn	Gly 245	Glu	Glu	Glu	Glu	Glu 250	Lys	Glu	Pro	Gly	Glu 255	Val
Gly	Thr	His	Asn 260	Asp	Asn	Gln	Glu	Arg 265	Lys	Thr	Glu	Leu	Pro 270	Arg	Glu
		Asn 275		-			280					285			
Leu	Glu 290	Glu	Ser	Asp	Gln	Pro 295	Thr	Gln	Val	Ser	Lys 300	Met	Gln	Glu	Asp
Glu 305	Phe	Asp	Gln	Gly	Asn 310	Gln	Glu	Gln	Glu	Asp 315	Asn	Ser	Asn	Ala	Glu 320
		Glu		325					330					335	
Glu	Trp	Gln	Ser 340	Gln	Glu	Gly	Lys	Thr 345	Gly	Leu	Glu	Ala	11e 350	Ser	Asn
His	Lys	Glu 355	Thr	Glu	Glu	Lys	Thr	Val	Ser	Glu	Ala	Leu 365	Leu	Met	Glu

WO 00/55180

Pro	Thr 370	Asp	Asp	Gly	Asn	Thr 375	Thr	Pro	Arg	Asn	His 380	Gly	Val	Asp	Asp
Asp 385	Gly	Asp	Asp	Asp	Gly 390	Asp	Asp	Gly	Gly	Thr 395	Asp	Gly	Pro	Arg	His 400
Ser	Ala	Ser	Asp	Asp 405	Tyr	Phe	Ile	Pro	Ser 410	Gln	Ala	Phe	Leu	Glu 415	Ala
Glu	Arg	Ala	Gln 420	Ser	Ile	Ala	Tyr	His 425	Leu	Lys	Ile	Glu	Glu 430	Gln	Arg
Glu	Lys	Val 435	His	Glu	Asn	Glu	Asn 440	Ile	Gly	Thr	Thr	Glu 445	Pro	Gly	Glu
His	Gln 450	Glu	Ala	Lys	Lys	Ala 455	Glu	Asn	Ser	Ser	Asn 460	Glu	Glu	Glu	Thr
Ser 465	Ser	Glu	Gly	Asn	Met 470	Arg	Val	His	Ala	Val 475	Asp	Ser	Сув	Met	Ser 480
Phe	Gln	Cys	Lys	Arg 485	Gly	His	Ile	Cys	Lys 490	Ala	Asp	Gln	Gln	Gly 495	Lys
Pro	His	Cys	Val 500	Cys	Gln	Asp	Pro	Val 505	Thr	Cys	Pro	Pro	Thr 510	Lys	Pro
Leu	Asp	Gln 515	Val	Cys	Gly	Thr	Asp 520	Asn	Gln	Thr	Tyr	Ala 525	Ser	Ser	Cys
His	Leu 530	Phe	Ala	Thr	Lys	Cys 535	Arg	Leu	Glu	Gly	Thr 540	Lys	Lys	Gly	His
Gln 545	Leu	Gln	Leu	Asp	Tyr 550	Phe	Gly	Ala	Cys	Lys 555	Ser	Ile	Pro	Thr	Cys 560
Thr	Asp	Phe	Glu	Val 565	Ile	Gln	Phe	Pro	Leu 570	Arg	Met	Arg	Asp	Trp 575	Leu
Lys	Asn	Ile	Leu 580	Met	Gln	Leu	Tyr	Glu 585	Ala	Asn	Ser	Glu	His 590	Ala	Gly
Tyr	Leu	Asn 595	Glu	Lys	Gln	Arg	Asn 600	Lys	Val	Lys	Lys	Ile 605	Tyr	Leu	Asp
Glu	Lys 610	Arg	Leu	Leu	Ala	Gly 615	Asp	His	Pro	Ile	Asp 620	Leu	Leu	Leu	Arg
Asp 625	Phe	Lys	Lys	Asn	Туг 630	His	Met	Tyr	Val	Туг 635	Pro	Val	His	Trp	Gln 640

Phe Ser Glu Leu Asp Gln His Pro Met Asp Arg Val Leu Thr His Ser 655

Glu Leu Ala Pro Leu Arg Ala Ser Leu Val Pro Met Glu His Cys Ile 660

Thr Arg Phe Phe Glu Glu Cys Asp Pro Asn Xaa Gly

680

<210> 556 <211> 61 <212> PRT <213> Homo sapiens <400> 556

Leu Val Leu Ile Leu Leu Ala Gly Ile Asn Asn Pro Lys Ser Val Gln
1 5 10 15

Thr Leu Gly Ala Lys Cys Ser Thr Gln Phe Gly Ile Leu Cys Leu Lys
20 25 30

Ile Tyr Phe Ile Val Thr Ala Pro Cys Ile Tyr Ser Trp Pro Arg Thr 35 40 45

Glu Leu Leu Gln Val Thr Trp Asn Phe His Ser Lys Ser 50 55 60

<210> 557
<211> 142
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Glu Ile Ala Asn Met Pro Asn Ser Glu Pro Ala Ser Leu Leu Glu Leu
                                     10
Phe Asn Ser Ile Ala Thr Gln Gly Glu Leu Val Arg Ser Leu Lys Ala
                                 25
Gly Asn Ala Ser Lys Asp Glu Ile Asp Ser Ala Val Lys Met Leu Val
Ser Leu Lys Met Ser Tyr Lys Ala Ala Ala Gly Glu Asp Tyr Lys Ala
Asp Cys Pro Pro Gly Asn Pro Ala Pro Thr Ser Asn His Gly Pro Asp
                  70
                                       75
Ala Thr Glu Ala Glu Glu Asp Phe Val Asp Pro Trp Thr Val Gln Thr
Ser Ser Ala Lys Gly Ile Asp Tyr Asp Lys Leu Ile Val Arg Phe Gly
                                105
Ser Ser Xaa Asn Xaa Gln Glu Leu Leu Xaa Asp Xaa Glu Ser Thr Ala
        115
Lys Xaa Thr His Ser Gly Gln Gly Xaa Phe Phe Lys Arg Xaa
                        135
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<211> 475

<212> PRT

<213> Homo sapiens

<400> 558

Glu Ile Ala Asn Met Pro Asn Ser Glu Pro Ala Ser Leu Leu Glu Leu 1 5 10 15

Phe Asn Ser Ile Ala Thr Gln Gly Glu Leu Val Arg Ser Leu Lys Ala 20 25 30

Gly Asn Ala Ser Lys Asp Glu Ile Asp Ser Ala Val Lys Met Leu Val 35 40 45

Ser Leu Lys Met Ser Tyr Lys Ala Ala Gly Glu Asp Tyr Lys Ala 50 55 60

Asp Cys Pro Pro Gly Asn Pro Ala Pro Thr Ser Asn His Gly Pro Asp 65 70 75 80

Ala Thr Glu Ala Glu Glu Asp Phe Val Asp Pro Trp Thr Val Gln Thr 85 90 95

Ser Ser Ala Lys Gly Ile Asp Tyr Asp Lys Leu Ile Val Arg Phe Gly
100 105 110

Ser Ser Lys Ile Asp Lys Glu Leu Ile Asn Arg Ile Glu Arg Ala Thr 115 120 125

Gly Gln Arg Pro His His Phe Leu Arg Arg Gly Ile Phe Phe Ser His 130 135 140

Arg Asp Met Asn Gln Val Leu Asp Ala Tyr Glu Asn Lys Lys Pro Phe 145 150 155 160

Tyr Leu Tyr Thr Gly Arg Gly Pro Ser Ser Glu Ala Met His Val Gly
165 170 175

His Leu Ile Pro Phe Ile Phe Thr Lys Trp Leu Gln Asp Val Phe Asn 180 185 190

Val Pro Leu Val Ile Gln Met Thr Asp Asp Glu Lys Tyr Leu Trp Lys 195 200 205

Asp Leu Thr Leu Asp Gln Ala Tyr Ser Tyr Ala Val Glu Asn Ala Lys 210 215 220

Asp Ile Ile Ala Cys Gly Phe Asp Ile Asn Lys Thr Phe Ile Phe Ser 225 230 235 240

Asp Leu Asp Tyr Met Gly Met Ser Ser Gly Phe Tyr Lys Asn Val Val

				245					250					255	
Lys	Ile	Gln	Lys 260	His	Val	Thr	Phe	Asn 265	Gln	Val	Lys	Gly	Ile 270	Phe	Gly
Phe	Thr	Asp 275	Ser	Asp	Cys	Ile	Gly 280	Lys	Ile	Ser	Phe	Pro 285	Ala	Ile	Gln
Ala	Ala 290	Pro	Ser	Phe	Ser	Asn 295	Ser	Phe	Pro	Gln	Ile 300	Phe	Arg	Asp	Arg
Thr 305	Asp	Ile	Gln	Cys	Leu 310	Ile	Pro	Cys	Ala	11e 315	Asp	Gln	Asp	Pro	Туг 320
Phe	Arg	Met	Thr	Arg 325	Asp	Val	Ala	Pro	Arg 330	Ile	Gly	Tyr	Pro	Lys 335	Pro
Ala	Leu	Leu	His 340	Ser	Thr	Phe	Phe	Pro 345	Ala	Leu	Gln	Gly	Ala 350	Gln	Thr
Lys	Met	Ser 355	Ala	Ser	Asp	Pro	Asn 360	Ser	Ser	Ile	Phe	Leu 365	Thr	Asp	Thr
Ala	Lys 370	Gln	Ile	Lys	Thr	Lys 375	Val	Asn	Lys	His	Ala 380	Phe	Ser	Gly	Gly
Arg 385	Asp	Thr	Ile	Glu	Glu 390	His	Arg	Gln	Phe	Gly 395	Gly	Asn	Cys	Asp	Val 400
Asp	Val	Ser	Phe	Met 405	Tyr	Leu	Thr	Phe	Phe 410	Leu	Glu	Asp	Asp	Asp 415	Lys
Leu	Glu	Gln	Ile 420	Arg	Lys	Asp	Tyr	Thr 425	Ser	Gly	Ala	Met	Leu 430	Thr	Gly
Glu		Lys 435	Lys	Ala	Leu	Ile	Glu 440	Val	Leu	Gln	Pro	Leu 445	Ile	Ala	Glu
His	Gln 450	Ala	Arg	Arg	Lys	Glu 455	Val	Thr	Ąsp	Glu	Ile 460	Val	Lys	Glu	Phe
Met 465	Thr	Pro	Arg	Lys	Leu 470	Ser	Phe	Asp	Phe	Gln 475					

<210> 559

<211> 265

<212> PRT

<213> Homo sapiens

<220>

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	2> (4										_				_
<22	3> Xa	aa e	quals	s any	of	the	natı	ıral:	Ly o	ccur	ring	L-ar	nino	acio	is
<400)> 5!	59													
Trp 1	Ile	Pro	Xaa	Leu 5	Gln	Ile	Arg	Thr	Gly 10	Glu	Ser	Tyr	Сув	Cys 15	Gly
Leu	Arg	Gly	Arg 20	Arg	Pro	Cys	Arg	Ser 25	Thr	Ser	Thr	Ser	Ala 30	Gly	Lys
Leu	Arg	Arg 35	Arg	Thr	Ala	Pro	Arg 40	Gly	Ser	Arg	Glu	Ala 45	His	Gly	Val
Gln	Ala 50	Leu	Arg	Gly	Gly	Trp 55	Pro	Gly	Gly	Tyr	Val 60	Ser	Phe	Gly	Pro
His 65	Ala	Gly	Lys	Leu	Val 70	Ala	Ile	Val	Asp	Val 75	Ile	Asp	Gln	Asn	Arg 80
Ala	Leu	Val	Asp	Gly 85	Pro	Cys	Thr	Gln	Val 90	Arg	Arg	Gln	Ala	Met 95	Pro
Phe	Lys	Cys	Met 100	Gln	Leu	Thr	Asp	Phe 105	Ile	Leu	Lys	Phe	Pro 110	His	Ser
Ala	His	Gln 115	Lys	Tyr	Val	Arg	Gln 120	Ala	Trp	Gln	Lys	Ala 125	Asp	Ile	Asn
Thr	Lys 130	Trp	Ala	Ala	Thr	Arg 135	Trp	Ala	Lys	Lys	Ile 140	Glu	Ala	Arg	Glu
Arg 145	Lys	Ala	Lys	Met	Thr 150	Asp	Phe	Asp	Arg	Phe 155	Lys	Val	Met	Lys	Ala 160
Lys	Lys	Met	Arg	Asn 165	Arg	Ile	Ile	Lys	Asn 170	Glu	Val	Lys	Lys	Leu 175	Gln
Lys	Ala	Ala	Leu 180	Leu	Lys	Ala	Ser	Pro 185	Lys	Lys	Ala	Pro	Gly 190	Thr	Lys
Gly	Thr	Ala 195	Ala	Ala	Ala	Ala	Ala 200	Ala	Ala	Ala	Ala	Ala 205	Ala	Ala	Ala
Ala	Lys 210	Val	Pro	Ala	Lys	Lys 215	Ile	Thr	Ala	Ala	Ser 220	Lys	Lys	Ala	Pro
Ala 225	Gln	Lys	Val	Pro	Ala 230	Gln	Lys	Ala	Thr	Gly 235	Gln	Lys	Ala	Ala	Pro 240

567

Ala Pro Lys Ala Gln Lys Gly Gln Lys Ala Pro Ala Gln Lys Ala Pro 245 250 255

Ala Pro Lys Ala Ser Gly Lys Lys Ala 260 265

<210> 560

<211> 41

<212> PRT

<213> Homo sapiens

<400> 560

Pro Asn Leu Ile Pro Val Ser Arg Asp Trp Glu Gly Arg Ala Ala Ala 1 $$ 5 $$ 10 $$ 15

Gly Gly Gln Ala Gly Ser Ala Cys Glu Gly Glu Glu Leu Trp Thr Ser
20 25 30

Ala Ser Leu Pro Arg Glu Arg Val Arg 35 40

<210> 561

<211> 48

<212> PRT

<213> Homo sapiens

<400> 561

Lys His Lys Asn Lys Asn Ile Ser Asp Asn Asn Ile Glu Lys Thr Lys

1 10 15

Ile His Gly Leu Glu Phe His Pro Arg Asp Cys Ile Leu Lys Asp Thr $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Phe Ser Ser Phe Phe Phe Phe Phe Ser Phe His Val Ser Val Leu
35 40 45

<210> 562

<211> 168

<212> PRT

<213> Homo sapiens

<400> 562

WQ 00/55180

568

PCT/US00/05918

Glu Pro Trp Pro Ser Pro Lys Lys Ala Arg Ser Gly Arg Trp Leu Arg 10

Asn Gly Phe Lys Arg Lys Met Glu Glu Pro Glu Glu Pro Ala Asp Ser

. Gly Gln Ser Leu Val Pro Val Tyr Ile Tyr Ser Pro Glu Tyr Val Ser

Met Cys Asp Ser Leu Ala Lys Ile Pro Lys Arg Ala Ser Met Val His

Ser Leu Ile Glu Ala Tyr Ala Leu His Lys Gln Met Arg Ile Val Lys

Pro Lys Val Ala Ser Met Glu Glu Met Ala Thr Phe His Thr Asp Ala 90

Tyr Leu Gln His Leu Gln Lys Val Ser Gln Glu Gly Asp Asp Asp His 100

Pro Asp Ser Ile Glu Tyr Gly Leu Gly Tyr Asp Cys Pro Ala Thr Glu 120

Gly Ile Phe Asp Tyr Ala Ala Ile Gly Gly Ala Thr Ile Thr Ala

Ala Gln Cys Leu Ile Asp Gly Met Cys Lys Val Ala Ile Asn Trp Ser

Gly Arg Trp His His Ala Lys Lys 165

<210> 563

<211> 352

<212> PRT

<213> Homo sapiens

<400> 563

Gly Ser Phe Gln Arg Cys Lys Lys Gly Gln Arg Leu Phe Pro Met Ala

Glu Gly Asn His Arg Lys Lys Pro Leu Lys Val Leu Glu Ser Leu Gly 20

Lys Asp Phe Leu Thr Gly Val Leu Asp Asn Leu Val Glu Gln Asn Val 40

Leu Asn Trp Lys Glu Glu Glu Lys Lys Lys Tyr Tyr Asp Ala Lys Thr

•

	50					55					60				
Glu 65	Asp	Lys	Val	Arg	Val 70	Met	Ala	Asp	Ser	Met 75	Gln	Glu	Lys	Gln	Arg 80
Met	Ala	Gly	Gln	Met 85	Leu	Leu	Gln	Thr	Phe 90	Phe	Asn	Ile	Asp	Gln 95	Ile
Ser	Pro	Asn	Lys 100	Lys	Ala	His	Pro	Asn 105	Met	Glu	Ala	Gly	Pro 110	Pro	Glu
Ser	Gly	Glu 115	Ser	Thr	Asp	Ala	Leu 120	Lys	Leu	Cys	Pro	His 125	Glu	Glu	Phe
Leu	Arg 130	Leu	Суз	Lys	Glu	Arg 135	Ala	Glu	Glu	Ile	туг 140	Pro	Ile	Lys	Glu
Arg 145	Asn	Asn	Arg	Thr	Arg 150	Leu	Ala	Leu	Ile	Ile 155	Cys	Asn	Thr	Glu	Phe 160
Asp	His	Leu	Pro	Pro 165	Arg	Asn	Gly	Ala	Asp 170	Phe	Asp	Ile	Thr	Gly 175	Met
Lys	Glu	Leu	Leu 180	Glu	Gly	Leu	Asp	Tyr 185	Ser	Val	Asp	Val	Glu 190	Glu	Asn
Leu	Thr	Ala 195	Arg	Asp	Met	Glu	Ser 200	Ala	Leu	Arg	Ala	Phe 205	Ala	Thr	Arg
Pro	Glu 210	His	Lys	Ser	Ser	Asp 215	Ser	Thr	Phe	Leu	Val 220	Leu	Met	Ser	His
Gly 225	Ile	Leu	Glu	Gly	Ile 230	Cys	Gly	Thr	Val	His 235	Asp	Glu	Lys	Lys	Pro 240
Asp	Val	Leu	Leu	Tyr 245	Asp	Thr	Ile	Phe	Gln 250	Ile	Phe	Asn	Asn	Arg 255	Asn
Cys	Leu	Ser	Leu 260	ГÀЗ	Asp	Lys	Pro	Lys 265	Val	Ile	Ile	Val	Gln 270	Ala	Суѕ
Arg	Gly	Ala 275	Asn	Arg	Gly	Glu	Leu 280	Trp	Val	Arg	Asp	Ser 285	Pro	Ala	Ser
Leu	Glu 290	Val	Ala	Ser	Ser	Gln 295	Ser	Ser	Glu	Asn	Leu 300	Glu	Glu	Asp	Ala
Val 305	Tyr	Lys	Thr	His	Val 310	Glu	Lys	Asp	Phe	11e 315	Ala	Phe	Cys	Ser	Ser 320
Thr	Pro	His	Asn	Val	Pro	Gly	Glu	Thr	Ala	Gln	Trp	Ala	Leu	Ser	Ser

570

325 330 335

Ser His Asn Ser Ser His Ala Ser Arg Asn Ile Leu Gly Ala Ala Thr 340 345 350

<210> 564

<211> 318

<212> PRT

<213> Homo sapiens

<400> 564

Arg Phe Tyr Arg Ser Arg Lys Lys His Leu Ile Thr Thr Gln Thr Glu

1 5 10 15

His Lys Cys Val Leu Asp Ser Cys Arg Ser Leu Glu Ala Glu Gly Phe 20 25 30

Gln Val Thr Tyr Leu Pro Val Gln Lys Ser Gly Ile Ile Asp Leu Lys 35 40 45

Glu Leu Glu Ala Ala Ile Gln Pro Asp Thr Ser Leu Val Ser Val Met 50 55 60

Thr Val Asn Asn Glu Ile Gly Val Lys Gln Pro Ile Ala Glu Ile Gly
65 70 75 80

Arg Ile Cys Ser Ser Arg Lys Val Tyr Phe His Thr Asp Ala Ala Gln 85 90 95

Ala Val Gly Lys Ile Pro Leu Asp Val Asn Asp Met Lys Ile Asp Leu
100 105 110

Met Ser Ile Ser Gly His Lys Ile Tyr Gly Pro Lys Gly Val Gly Ala 115 120 125

Ile Tyr Ile Arg Arg Arg Pro Arg Val Arg Val Glu Ala Leu Gln Ser 130 135 140

Gly Gly Gln Glu Arg Gly Met Arg Ser Gly Thr Val Pro Thr Pro 145 150 155 160

Leu Val Val Gly Leu Gly Ala Ala Cys Glu Val Ala Gln Glu Met 165 170 175

Glu Tyr Asp His Lys Arg Ile Ser Lys Leu Ser Glu Arg Leu Ile Gln 180 185 190

571

Asn Ile Met Lys Ser Leu Pro Asp Val Val Met Asn Gly Asp Pro Lys 195 200 His His Tyr Pro Gly Cys Ile Asn Leu Ser Phe Ala Tyr Val Glu Gly 215 220 Glu Ser Leu Leu Met Ala Leu Lys Asp Val Ala Leu Ser Ser Gly Ser 225 230 235 Ala Cys Thr Ser Ala Ser Leu Glu Pro Ser Tyr Val Leu Arg Ala Ile 250 Gly Thr Asp Glu Asp Leu Ala His Ser Ser Ile Arg Phe Gly Ile Gly 265 Arg Phe Thr Thr Glu Glu Glu Val Asp Tyr Thr Val Glu Lys Cys Ile 275 280 Gln His Val Lys Arg Leu Arg Glu Met Ser Pro Leu Trp Glu Met Val 295 Gln Asp Gly Ile Asp Leu Lys Ser Ile Lys Trp Thr Gln His 305 310 315 <210> 565 <211> 418 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (367) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (383) <223> Xaa equals any of the naturally occurring L-amino acids <400> 565 Glu Ser Thr Glu Ser Leu Thr Xaa Glu Gly Thr Asp Met Asn Glu Gly

1 5 10

Gln	Leu	Leu	Gly 20	Asp	Phe	Glu	Ile	Glu 25	Ser	Lys	Gln	Leu	Glu 30	Ala	Glu
Ser	Trp	Ser 35	Arg	Ile	Ile	Asp	Ser 40	Lys	Phe	Leu	Lys	Gln 45	Gln	Lys	Lys
Asp	Val 50	Val	Lys	Arg	Gln	Glu 55	Val	Ile	Tyr	Glu	Leu 60	Met	Gln	Thr	Glu
Phe 65	His	His	Val	Arg	Thr 70	Leu	Lys	Ile	Met	Ser 75	Gly	Val	туr	Ser	Gln 80
Gly	Met	Met	Ala	Asp 85	Leu	Leu	Phe	Glu	Gln 90	Gln	Met	Val	Glu	Lys 95	Leu
Phe	Pro	Cys	Leu 100	Asp	Glu	Leu	Ile	Ser 105	Ile	His	Ser	Gln	Phe 110	Phe	Gln
Arg	Ile	Leu 115	Glu	Arg	Lys	Lys	Glu 120	Ser	Leu	Val	Asp	Lys 125	Ser	Glu	Lys
Asn	Phe 130	Leu	Ile	Lys	Arg	Ile 135	Gly	Asp	Val	Leu	Val 140	Asn	Gln	Phe	Ser
Gly 145	Glu	Asn	Ala	Glu	Arg 150	Leu	Lys	Lys	Thr	Туг 155	Gly	Lys	Phe	Cys	Gly 160
Gln	His	Asn	Gln	Ser 165	Val	Asn	Tyr	Phe	Lys 170	Asp	Leu	Tyr	Ala	Lys 175	Asp
Lys	Arg	Phe	Gln 180	Ala	Phe	Val	Lys	Lys 185	Lys	Met	Ser	Ser	Ser 190	Val	Val
Arg	Arg	Leu 195	Gly	Ile	Pro	Glu	Cys 200	Ile	Leu	Leu	Val	Thr 205	Gln	Arg	Ile
Thr	Lys 210	Tyr	Pro	Val	Leu	Phe 215	Gln	Arg	Ile	Leu	Gln 220	Cys	Thr	Lys	Asp
Asn 225	Glu	Val	Glu	Gln	Glu 230	Asp	Leu	Ala	Gln	Ser 235	Leu	Ser	Leu	Val	Lys 240
Asp	Val	Ile	Gly	Ala 245	Val	Asp	Ser	Lys	Val 250	Ala	Ser	Tyr	Glu	Lys 255	Lys
Val	Arg	Leu	Asn 260	Glu	Ile	Tyr	Thr	Lys 265	Thr	Asp	Ser	Lys	Ser 270	Ile	Met
Arg	Met	Lys 275	Ser	Gly	Gln	Met	Phe 280	Ala	Lys	Glu	Asp	Leu 285	Lys	Arg	Lys

573

 Lys
 Leu Val Arg
 Asp Solution
 Gly Ser 295
 Val Phe Leu Lys San Ala Ala Ala Gly Arg 300
 Ala Ala Gly Arg 300

 Leu Lys
 Glu Val Gln Ala 310
 Val Leu Leu Thr Asp Ile Leu Val Phe Leu 320

 Gln Glu Lys
 Asp Gln Lys Tyr Ile Phe Ala Ser Leu Asp Gln Lys Ser 330

 Thr Val Ile Ser Leu Lys Lys Lys Leu Ile Val Arg Glu Val Ala His Glu 340

 Glu Lys Gly Leu Phe Leu Ile Ser Met Gly Met Thr Asp Pro Xaa Met 355

Val Glu Val His Ala Ser Ser Lys Glu Glu Arg Asn Ser Trp Xaa Gln 370 380

Ile Ile Gln Asp Thr Ile Asn Thr Arg Thr Glu Met Lys Met Lys Glu 385 390 395 400

Phe Leu Val Arg Met Arg Lys Lys Arg Lys Cys Trp Thr Pro Glu Pro 405 410 415

Glu Asn

<210> 566

<211> 123

<212> PRT

<213> Homo sapiens

<220>

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<222> (52)

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<400> 566

Pro Gln Cys Leu Gln Lys His Phe Ala Lys Ile Arg Asp Arg Ser Thr 1 5 10 15

Ser Gly Gly Lys Met Lys Val Asn Gly Ala Pro Arg Glu Asp Ala Arg 20 25 30

Pro Val Pro Gln Gly Ser Cys Gln Ser Glu Leu His Arg Ala Leu Glu 35 40 45

Arg Leu Ala Xaa Ser Gln Ser Arg Thr His Glu Asp Leu Tyr Ile Ile 50 60

574

Pro Ile Pro Asn Cys Asp Arg Asn Gly Asn Phe His Pro Lys Gln Cys 65 70 75 80

His Pro Ala Leu Asp Gly Gln Arg Gly Lys Cys Trp Cys Val Asp Arg 85 90 95

Lys Thr Gly Val Lys Leu Pro Gly Gly Leu Glu Pro Lys Gly Glu Leu
100 105 110

Asp Cys His Gln Leu Ala Asp Ser Phe Arg Glu 115 120

<210> 567

<211> 305

<212> PRT

<213> Homo sapiens

<220>

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<220>

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<400> 567

Gly Ser Leu Leu Met Lys Ile Glu Leu Ser Met Gln Pro Trp Asn Pro 1 5 10 15

Gly Tyr Ser Ser Glu Gly Ala Thr Ala Gln Glu Thr Tyr Thr Cys Pro 20 25 30

Lys Met Ile Glu Met Glu Gln Ala Glu Ala Gln Leu Ala Glu Leu Asp 35 40 45

Leu Leu Ala Ser Met Phe Pro Gly Glu Asn Glu Leu Ile Val Asn Asp

Gln Leu Ala Val Ala Glu Leu Lys Asp Cys Ile Glu Lys Lys Thr Met 65 70 75 80

Glu Gly Arg Ser Ser Lys Val Tyr Phe Thr Ile Asn Met Asn Leu Asp 85 90 95

Val Ser Asp Glu Lys Met Ala Met Phe Ser Leu Ala Cys Ile Leu Pro 100 105 110

Phe Lys Tyr Pro Ala Val Leu Pro Glu Ile Thr Val Arg Ser Val Leu 115 120 125

Leu Ser Arg Ser Gln Gln Thr Gln Leu Asn Thr Asp Leu Thr Ala Phe 130 135 140

Leu Gln Lys His Cys His Gly Asp Val Cys Ile Leu Asn Ala Thr Glu 145 150 155 160

Trp Xaa Arg Glu His Ala Ser Gly Tyr Val Ser Arg Asp Thr Ser Ser 165 170 175

Ser Pro Thr Thr Gly Ser Thr Val Gln Ser Val Asp Leu Ile Phe Thr 180 185 190

Arg Leu Trp Ile Tyr Ser His His Ile Tyr Asn Lys Cys Lys Arg Lys 195 200 205

Asn Ile Leu Glu Trp Xaa Lys Glu Leu Ser Leu Ser Gly Phe Ser Met 210 215 220

Pro Gly Lys Pro Gly Val Val Cys Val Glu Gly Pro Gln Ser Ala Cys 225 230 235 240

Glu Glu Phe Trp Ser Arg Leu Arg Lys Leu Asn Ser Glu Glu Asn Phe 245 250 255

Asn Ser Pro Ser Glu Lys Thr Phe Leu Xaa Met Val Gln Met Met Lys 260 265 270

Arg Lys Asp Lys Gly Asn Phe Pro Phe Leu Lys Lys Lys Cys Ser Val 275 280 285

Leu Met Glu Pro Gly Glu Thr Thr Trp Thr Leu Val Ser Ser Ile Ser 290 295 300

Ser 305

<210> 568

<211> 596

<212> PRT

<213> Homo sapiens

<400)> 56	68													
Gln l	Glu	Arg	Asp	Gly 5	Ala	Lys	Met	Ala	Ala 10	Ala	Asp	Gly	Asp	Asp 15	Ser
Leu	Tyr	Pro	Ile 20	Ala	Val	Leu	Ile	Asp 25	Glu	Leu	Arg	Asn	Glu 30	Asp	Val
Gln	Leu	Arg 35	Leu	Asn	Ser	Ile	Lys 40	Lys	Leu	Ser	Thr	Ile 45	Ala	Leu	Ala
Leu	Gly 50	Val	Glu	Arg	Thr	Arg 55	Ser	Glu	Leu	Leu	Pro 60	Phe	Leu	Thr	Asp
Thr 65	Ile	Tyr	Asp	Glu	Asp 70	Glu	Val	Leu	Leu	Ala 75	Leu	Ala	Glu	Gln	Let 80
Gly	Thr	Phe	Thr	Thr 85	Leu	Val	Gly	Gly	Pro 90	Glu	Tyr	Val	His	Cys 95	Let
Leu	Pro	Pro	Leu 100	Glu	Ser	Leu	Ala	Thr 105	Val	Glu	Glu	Thr	Val 110	Val	Arç
Asp	Lys	Ala 115	Val	Glu	Ser	Leu	Arg 120	Ala	Ile	Ser	His	Glu 125	His	Ser	Pro
Ser	Asp 130	Leu	Glu	Ala	His	Phe 135	Val	Pro	Leu	Val	Lys 140	Arg	Leu	Ala	Gly
Gly 145	Asp	Trp	Phe	Thr	Ser 150	Arg	Thr	Ser	Ala	Cys 155	Gly	Leu	Phe	Ser	Val
Cys	туг	Pro	Arg	Val 165	Ser	Ser	Ala	Val	Lys 170	Ala	Glu	Leu	Arg	Gln 175	Туг
Phe	Arg	Asn	Leu 180	Cys	Ser	Asp	Asp	Thr 185	Pro	Met	Val	Arg	Arg 190	Ala	Ala
Ala	Ser	Lys 195	Leu	Gly	Glu	Phe	Ala 200	Lys	Val	Leu	Glu	Leu 205	Asp	Asn	Va]
Lys	Ser 210	Glu	Ile	Ile	Pro	Met 215	Phe	Ser	Asn	Leu	Ala 220	Ser	Asp	Glu	Glr
Asp 225	Ser	Val	Arg	Leu	Leu 230	Ala	Val	Glu	Ala	Cys 235	Val	Asn	Ile	Ala	Glr 240
Leu	Leu	Pro	Gln	Glu 245	Asp	Leu	Glu	Ala	Leu 250	Val	Met	Pro	Thr	Leu 255	Arç

Gln Ala Ala Glu Asp Lys Ser Trp Arg Val Arg Tyr Met Val Ala Asp

			260					265					270		
Lys	Phe	Thr 275	Glu	Leu	Gln	Lys	Ala 280	Val	Gly	Pro	Glu	Ile 285	Thr	Lys	Thr
Asp	Leu 290	Val	Pro	Ala	Phe	Gln 295	Asn	Leu	Met	Lys	Asp 300	Суз	Glu	Ala	Glu
Val 305	Arg	Ala	Ala	Ala	Ser 310	His	Lys	Val	Lys	Glu 315	Phe	Cys	Glu	Asn	Leu 320
Ser	Ala	Asp	Cys	Arg 325	Glu	Asn	Val	Ile	Met 330	Ser	Gln	Ile	Leu	Pro 335	Cys
Ile	Lys	Glu	Leu 340	Val	Ser	Asp	Ala	Asn 345	Gln	His	Val	Lys	Ser 350	Ala	Leu
Ala	Ser	Val 355	Ile	Met	Gly	Leu	Ser 360	Pro	Ile	Leu	Gly	Lys 365	Asp	Asn	Thr
Ile	Glu 370	His	Leu	Leu	Pro	Leu 375	Phe	Leu	Ala	Gln	Leu 380	Lys	Asp	Glu	Cys
Pro 385	Glu	Val	Arg	Leu	Asn 390	Ile	Ile	Ser	Asn	Leu 395	Asp	Cys	Val	Asn	Glu 400
Val	Ile	Gly	Ile	Arg 405	Gln	Leu	Ser	Gln	Ser 410	Leu	Leu	Pro	Ala	Ile 415	Val
Glu	Leu	Ala	Glu 420	Asp	Ala	Lys	Trp	Arg 425	Val	Arg	Leu	Ala	Ile 430	Ile	Glu
Tyr	Met	Pro 435	Leu	Leu	Ala	Gly	Gln 440	Leu	Gly	Val	Glu	Phe 445	Phe	Asp	Glu
Lys	Leu 450	Asn	Ser	Leu	Cys	Met 455	Ala	Trp	Leu	Val	Asp 460	His	Val	Tyr	Ala
Ile 465	Arg	Glu	Ala	Ala	Thr 470	Ser	Asn	Leu	Lys	Lys 475	Leu	Val	Glu	Lys	Phe 480
Gly	Lys	Glu	Trp	Ala 485	His	Ala	Thr	Ile	11e 490	Pro	Lys	Val	Leu	Ala 495	Met
Ser	Gly	Asp	Pro 500	Asn	Tyr	Leu	His	Arg 505	Met	Thr	Thr	Leu	Phe 510	Суѕ	Ile
Asn	Val	Leu 515	Ser	Glu	Val	Cys	Gly 520	Gln	Asp	Ile	Thr	Thr 525	Lys	His	Met
Leu	Pro	Thr	Val	Leu	Arg	Met	Ala	Gly	Asp	Pro	Val	Ala	Asn	Val	Arg

530 535 540

Phe Asn Val Ala Lys Ser Leu Gln Lys Ile Gly Pro Ile Leu Asp Asn 545 550 555 560

Ser Thr Leu Gln Ser Glu Val Lys Pro Ile Leu Glu Lys Leu Thr Gln 565 570 575

Asp Gln Asp Val Asp Val Lys Tyr Phe Ala Gln Glu Ala Leu Thr Val 580 585 590

Leu Ser Leu Ala 595

<210> 569

<211> 93

<212> PRT

<213> Homo sapiens

<400> 569

Ser Thr Val Trp Thr Arg Asn Val Pro Cys His His Ala Met Lys Tyr
1 5 10 15

Cys Tyr Arg Phe Asn Ile Ala His Leu Cys Arg Met Asn Ser Gly Gly

Leu Pro Gln Val Thr Val Arg Thr Val Asp Gly Glu Ile Ala Asp Ala 35 40 45

Leu Leu Ser Arg Phe Ser Val Thr Phe Ser Met Phe Ile Thr Gln Trp 50 55 60

Val Phe Ile Asn Met Leu Ile Lys Leu Phe Thr Gly Pro Val Ile Val 65 70 75 80

Leu Asn Ser Cys Ser Phe Val Phe His Cys Leu Asp Val 85 90

<210> 570

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids Xaa Gln Leu Asp Tyr Arg Glu Tyr Leu Glu Ser Tyr Leu Ser Tyr Pro 10 Leu Leu Xaa Asn Met Lys Ser His Ala Leu Asp Ile Leu Tyr Ile Ile 25 Arg Phe Leu Cys Phe Trp Leu Cys Cys Pro Pro Ser Pro Trp Gly 40 Asp Ile Trp Glu Gln Thr Tyr Leu Asp Leu Glu 55 <210> 571 <211> 132 <212> PRT <213> Homo sapiens <400> 571 Ile Ile Tyr Phe Gln Cys Phe Leu His Val Leu Ile Cys Ser Phe Ser Gln Leu Asn Ala Pro Thr Gly Leu Ser Pro Val Ser Ile Gln Ser Val Glu Ile Lys Asp Ser Ser Phe Leu Leu Ile Ser Ile Leu Val Ser Ile 35 40 Leu Asn Leu Glu Thr Ser Cys Phe Tyr Asp Ile Ser His Leu Ile Phe 55 Phe Ile Phe Tyr Leu Arg Asn Met Lys Lys Lys Tyr Thr Lys Met Val 70 75 Lys Leu Leu His Lys Ser Ala Pro Ala Gln Ser Asp Ser Cys Lys Cys Pro Phe Ile Cys Cys Val Cys Ile Ser Arg Ile Ser Ile Gly Ser Arg 105 Ser Gly Tyr Gln Tyr Ile Met His Arg Ser Val Gly Cys Leu Lys Ala 115 120 125

580

Lys Gln Glu Asn 130

<210> 572

<211> 145

<212> PRT

<213> Homo sapiens

<400> 572

Val Gly Leu Ala Pro Leu Gln Arg Phe Trp Gly Ser Gly Cys Cys Val 1 5 10 15

Ser Pro Cys Leu Cys Pro Gly His Pro Lys Pro Phe Cys Tyr Leu Leu 20 25 30

Gly Leu Trp Glu Gly Phe Phe Phe Phe Leu Glu Pro Ala Pro Val 35 40 45

Leu His Thr Ala Pro His Ala Ser Ala Ser Tyr Arg Cys Ala Ile Met 50 55 60

Gly Gly Met Gly Gly Ala Glu Gly Leu Pro His Pro Gly Gln Ala Lys 65 70 75 80

Ala Val Gly Arg Gly Ala Leu Pro Pro Phe Pro Ala Pro Ser Ser Ser 85 90 95

Leu Ile Lys Thr Trp Leu Leu Ile Phe Asn Lys Asp Leu Phe Val Thr

Glu Lys Lys Lys Lys Arg Ala Gly Arg Ser Lys Arg Ile Pro Arg Gly
115 120 125

Gly Pro Ser Phe Thr Arg Gly Met Ala Asn Val His Lys Leu Ser Ser 130 140

Leu

145

<210> 573

<211> 286

<212> PRT

<213> Homo sapiens

<400> 573

Val Ile Ser Glu Arg Leu Ser Ala Cys Pro Pro Ser Arg Arg Val Ala 1 5 10 15

GIÀ	Ala	Cys	20	Ser	Arg	Ser	Thr	Ser 25	Leu	Leu	Leu	Ser	30	Pro	Arg
Pro	Gly	Gly 35	Pro	Glu	Arg	Glu	Ala 40	Gly	Thr	Met	Phe	Arg 45	Arg	Lys	Leu
Thr	Ala 50	Leu	Asp	Tyr	His	Asn 55	Pro	Ala	Gly	Phe	Asn 60	Суз	Lys	Asp	Glu
Thr 65	Glu	Phe	Arg	Asn	Phe 70	Ile	Val	Trp	Leu	Glu 75	Asp	Gln	Lys	Ile	Arg 80
His	Tyr	Lys	Ile	Glu 85	Asp	Arg	Gly	Asn	Leu 90	Arg	Asn	Ile	His	Ser 95	Ser
Asp	Trp	Pro	Lys 100	Phe	Phe	Glu	Lys	Tyr 105	Leu	Arg	Asp	Val	Asn 110	Cys	Pro
Phe	Lys	Ile 115	Gln	Asp	Arg	Gln	Glu 120	Ala	Ile	Asp	Trp	Leu 125	Leu	Gly	Leu
	130				Tyr	135					140				
Val 145	Pro	Asp	Asn	Ser	Lys 150	Thr	Ala	Asp	Asn	Ala 155	Thr	Lys	Asn	Ala	Glu 160
Pro	Leu	Ile	Asn	Leu 165	Asp	Val	Asn	Asn	Pro 170	Asp	Phe	Lys	Ala	Gly 175	Val
			180		Leu			185				_	190	-	
		195	_		Ile		200					205			
	210				Ala	215			_		220				
Leu 225	Asp	Lys	His	Ile	Leu 230	Gly	Phe	Asp	Thr	Gly 235	Asp	Ala	Val	Leu	Asn 240
				245	Leu	_			250					255	
			260		Asn			265					270	Ile	Ile
Ala	Asp	Pro 275	Lys	Thr	Asp		Arg 280	Leu	Gly	Lys	Val	Gly 285	Arg		

582

<210> 574 <211> 63 <212> PRT <213> Homo sapiens <400> 574 Met Arg Lys Ile Arg His Arg Glu Val Lys Val Gly Ile Asp Pro Asn 1 5 10 Leu His Asn Lys Ile Met Thr Ser Pro Ala Phe Lys Leu Ile Ile Lys 25 Gly Trp Ala Gly Phe Val Leu Leu Tyr Val Ser Gly Asn Leu Tyr Leu 40 Leu His Phe Pro Phe Ser Gln Asn Leu Ser His Met Thr Asn Ile 50 <210> 575 <211> 189 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (155) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (165) <223> Xaa equals any of the naturally occurring L-amino acids Ala Ser Leu Pro Trp Ser Ser Tyr Glu Gln Glu Lys Glu Ala Leu Thr 1 5 10 His Ser Phe Arg Glu Ala Ser Ser Thr Gln Glu Thr Ile Asp Arg 20 Leu Thr Ser Gln Leu Glu Ala Phe Gln Ala Lys Met Lys Arg Val Glu 40 Glu Ser Ile Leu Ser Arg Asn Tyr Lys Lys His Ile Gln Asp Tyr Gly

50

Ser 65	Pro	Ser	Gln	Phe	Trp 70	Glu	Gln	Glu	Leu	Glu 75	Ser	Leu	His	Phe	Val 80
Ile	Glu	Met	Lys	Asn 85	Glu	Arg	Ile	His	Glu 90	Leu	Asp	Arg	Arg	Leu 95	Ile
Leu	Met	Glu	Thr 100	Val	Lys	Glu	Lys	Asn 105	Leu	Ile	Leu	Glu	Glu 110	Lys	Ile
Thr	Thr	Leu 115	Gln	Gln	Glu	Asn	Glu 120	Asp	Leu	His	Val	Arg 125	Ser	Arg	Asn
Gln	Val 130	Val	Leu	Ser	Arg	Gln 135	Leu	Ser	Glu	Asp	Leu 140	Leu	Leu	Thr	Arg
Glu 145	Ala	Leu	Glu	Lys	Glu 150	Val	Gln	Leu	Arg	Xaa 155	Gln	Leu	Gln	Gln	Glu 160
Lys	Glu	Glu	Leu	Xaa 165	Tyr	Arg	Val	Leu	Gly 170	Ala	Asn	Ala	Ser	Pro 175	Ala
Phe	Pro	Leu	Ala 180	Pro	Val	Thr	Pro	Thr 185	Gly	Lys	Gly	Gly			
)> 57 I> 18														
<21	0> 5: l> 1: 2> PI	53													
<21:	l> 19 2> PF	53 RT	sapie	ens											
<21: <21: <21:	l> 19 2> PF	33 RT Omo s	sapie	ens											
<213 <213 <213	l> 15 2> PF 3> Ho 0> 57	S3 RT OMO S	sapie Arg		Ala	Asp	Asp	Leu	Gln 10	Lys	Arg	Leu	Ala	Val 15	Туг
<21: <21: <21: <40: Arg	l> 19 2> PP 3> Ho 0> 50 Leu	ST OMO S 76 Leu	•	Asp 5	•				10					15	
<21: <21: <21: <40: Arg 1	l> 15 2> PF 3> Ho D> 55 Leu Ala	63 RT DMO 8 76 Leu Gly	Arg	Asp 5 Arg	Glu	Gly	Ala	Glu 25	10 Arg	Gly	Leu	Ser	Ala 30	15	Arg
<21: <21: <21: <400 Arg 1 Gln	I> 15 2> PF 3> Ho 0> 57 Leu Ala	Gly Leu 35	Arg	Asp 5 Arg Pro	Glu Leu	Gly Val	Ala Glu 40	Glu 25 Gln	10 Arg Gly	Gly Arg	Leu Val	Ser Arg 45	Ala 30 Ala	15 Ile Ala	Arg Thr
<21: <21: <400 Arg 1 Gln	1> 1: 2> PF 3> Ho 0> 5: Leu Ala Arg 50	Gly Leu 35	Arg Ala 20 Gly	Asp 5 Arg Pro	Glu Leu Gly	Gly Val Gln 55	Ala Glu 40 Pro	Glu 25 Gln Leu	10 Arg Gly Gln	Gly Arg Glu	Leu Val Arg 60	Ser Arg 45 Ala	Ala 30 Ala Gln	15 Ile Ala Ala	Arg Thr

Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala Phe Gln

100 105 110

Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met Gln Arg 115 120 125

Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly Thr Ser 130 135 140

Ala Ala Pro Val Pro Ser Asp Asn His 145 150

<210> 577

<211> 48

<212> PRT

<213> Homo sapiens

<400> 577

Thr Glu Ile Thr Pro Leu His Ser Ser Leu Ala Lys Lys Leu Pro Lys
1 5 10 15

Asn Glu Pro Gln Asn Pro Gly Ala Asn Ser Ala Arg Gly Arg Gly Val 20 25 30

Asp Leu Thr Glu Pro Thr Gln Pro Thr Arg Asn Gln Cys Cys Ser Asn 35 40 45

<210> 578

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93)

PCT/US00/05918

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 578

WO 00/55180

Lys Thr Ile Gln Asp Pro Leu Ala Ala Thr Leu Phe Ser Ser Leu
1 5 10 15

Leu Asn Ser Ile Ser Lys Ile Gly Asn Arg Ala Arg Arg Ile Pro Ser 20 25 30

Thr Gln Pro Ser Ala Trp His Lys Xaa Val Gly Thr Ile Lys Phe Ser 35 40 45

Met Gly Trp Glu His Gly Tyr Ser Leu Gly Cys His Arg Lys Gly Val
50 60

Gly Xaa His Arg Ser His Ile His Leu Ile Ser Trp Asp Val Pro Leu 65 70 75 80

His Arg Gly Asn Thr Asn Phe Arg Gly Phe Trp Gly Xaa Gly Leu Gly
85 90 95

Ser Asp

<210> 579

<211> 194

<212> PRT

<213> Homo sapiens

<400> 579

Thr Tyr Asn Ile Lys Met Ala Ser Lys Arg Ala Leu Val Ile Leu Ala 1 5 10 15

Lys Gly Ala Glu Glu Met Glu Thr Val Ile Pro Val Asp Val Met Arg 20 25 30

Arg Ala Gly Ile Lys Val Thr Val Ala Gly Leu Ala Gly Lys Asp Pro 35 40 45

Val Gln Cys Ser Arg Asp Val Val Ile Cys Pro Asp Ala Ser Leu Glu 50 55 60

Asp Ala Lys Lys Glu Gly Pro Tyr Asp Val Val Val Leu Pro Gly Gly 65 70 75 80

Asn Leu Gly Ala Gln Asn Leu Ser Glu Ser Ala Ala Val Lys Glu Ile 85 90 95

Leu Lys Glu Gln Glu Asn Arg Lys Gly Leu Ile Ala Ala Ile Cys Ala

100 105 110 Gly Pro Thr Ala Leu Leu Ala His Glu Ile Gly Phe Gly Ser Lys Val 120 Thr Thr His Pro Leu Ala Lys Asp Lys Met Met Asn Gly Gly His Tyr Thr Tyr Ser Glu Asn Arg Val Glu Lys Asp Gly Leu Ile Leu Thr Ser 155 Arg Gly Pro Gly Thr Ser Phe Glu Phe Ala Leu Ala Ile Val Glu Ala 170 Leu Asn Gly Lys Glu Val Ala Ala Gln Val Lys Ala Pro Leu Val Leu 180 185 Lys Asp <210> 580 <211> 192 <212> PRT <213> Homo sapiens <400> 580 Asp Pro Arg Arg Pro Pro Thr Arg Pro Trp Gly Leu Pro Arg Ala Pro 10 Ala Thr Ala Arg Thr Arg Gly Arg Ser Leu Asn Ile Pro Leu Thr Thr Arg Arg Arg Pro Ala Thr Glu Ala Pro Ser Thr Leu Ser Pro His Ile 40 Val Ser Pro Ser Gly Phe Leu Gly Phe Ser Val Phe Ser Ser Phe Phe 55 Phe Phe Leu Thr Arg Ser Val Leu Pro Val Asn Gln Gly Ser Val Ser Val Ser Val Gly Ser Gly Ser Arg Ala Phe Phe Pro Phe Ala Leu Ile Leu Arg Lys Ala Glu Pro Leu Gly Cys Gly Gly Arg Gly Gln Gly His 100 105

Ile Pro Ile Arg Val Gly Arg Gly Ser Leu Leu Ala His Ser Gly Cys

125

120

115

587

Ala Gly Lys Lys Arg Pro Gly Leu Gly Arg Asn Arg Ser Pro Thr Val 130 135 140

Ser Gly Cys Leu Ala Ser Ser Pro Phe Cys Gln Leu Ser Ser Leu Trp 145 150 155 160

Phe Leu Cys Pro Gln Val Ser Gly Ser Ile His Lys Arg Lys Ile His 165 170 175

Phe Phe Pro Gln Gly Trp Gly Lys Asp Ser Gly Glu Ser Ala Arg Lys 180 185 190

<210> 581

<211> 112

<212> PRT

<213> Homo sapiens

<400> 581

Lys Asn Lys Gln Asn Tyr Val Ala Arg Leu Thr Val Val Met Phe Ile $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys His Arg Ser Lys Val His Lys Val Tyr Gln Ile Tyr Ile Tyr Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Tyr Leu Asp Arg Leu Leu Leu Phe Phe Tyr Leu Ser Leu Gln 35 40 45

Glu Phe Gly Asn Ser Leu Ser Leu Phe Leu Ile Leu Lys Ile Leu Asn 50 55 60

Cys Asn Ser Phe Leu Leu Pro Asn Val Cys Val His Ile Gln Ser Asn 65 70 75 80

Glu Thr Ile Ser Ser His Thr Thr Gly Val Gly Thr Phe Ser Gln 85 90 95

Ile Leu Met Cys Leu Tyr Val Asn Arg Cys Leu Tyr Glu Ile Phe Ser 100 105 110

<210> 582

<211> 80 <212> PRT

<213> Homo sapiens

<400> 582

Val Glu Gly Ala Pro Cys Pro Thr Ser Pro Val Val Pro Arg Leu His 1 5 10 15

Pro Val Ala Gly His Gly Pro Gly Pro Ser Cys Ile Cys Pro Phe Leu 20 25 30

Gly Tyr Ser Cys Gly Arg Cys Pro Arg Gly Arg Ser Asn Gly Thr Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Pro Leu Pro Cys Pro Pro Pro Ala Ser Pro Pro Arg Pro Ala Thr 50 55 60

Trp Pro Ser Pro Phe Arg Ser Ser Ser Cys Asn Lys Cys Phe Asn Phe 65 70 75 80

<210> 583

<211> 424

<212> PRT

<213> Homo sapiens

<400> 583

Ala Glu Leu Pro Gly Gly Gln Asp Ala Gly Gly Gly Ala Leu Trp Pro 1 5 10 15

Leu Cys Gly Ser Arg Gly Leu Cys Val Ser Asp Arg Phe Pro Gly Asn $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Phe Arg Ala Arg Leu Thr Ser Trp Lys Phe Lys Tyr Ser Ile Ala Leu 35 40 45

Val Ile Leu Gly Asn Leu Glu Lys Arg Pro Gly Leu Arg Ile Gln Thr 50 55 60

Trp Ala Leu Arg Trp Pro Arg Thr Cys Arg Leu His Leu Gln Pro Arg 65 70 75 80

Ala Leu Pro Gly Ser Ser Met Ala Asp Gln Ala Pro Phe Asp Thr Asp 85 90 95

Val Asn Thr Leu Thr Arg Phe Val Met Glu Glu Gly Arg Lys Ala Arg 100 105 110

Gly	Thr	Gly 115	Glu	Leu	Thr	Gln	Leu 120	Leu	Asn	Ser	Leu	Cys 125	Thr	Ala	Val
Lys	Ala 130	Ile	Ser	Ser	Ala	Val 135	Arg	Lys	Ala	Gly	Ile 140	Ala	His	Leu	Tyr
Gly 145	Ile	Ala	Gly	Ser	Thr 150	Asn	Val	Thr	Gly	Asp 155	Gln	Val	Lys	Lys	Leu 160
Asp	Val	Leu	Ser	Asn 165	Asp	Leu	Val	Met	Asn 170	Met	Leu	Lys	Ser	Ser 175	Phe
Ala	Thr	Cys	Val 180	Leu	Val	Ser	Glu	Glu 185	Asp	Lys	His	Ala	Ile 190	Ile	Val
Glu	Pro	Glu 195	Lys	Arg	Gly	Lys	Туг 200	Val	Val	Cys	Phe	Asp 205	Pro	Leu	Asp
Gly	Ser 210	Ser	Asn	Ile	Asp	Cys 215	Leu	Val	Ser	Val	Gly 220	Thr	Ile	Phe	Gly
Ile 225	Tyr	Arg	Lys	Lys	Ser 230	Thr	Asp	Glu	Pro	Ser 235	Glu	·Lys	Asp	Ala	Leu 240
Gln	Pro	Gly	Arg	Asn 245	Leu	Val	Ala	Ala	Gly 250	Tyr	Ala	Leu	Tyr	Gly 255	Ser
Ala	Thr	Met	Leu 260	Val	Leu	Ala	Met	Asp 265	Cys	Gly	Val	Asn	Cys 270	Phe	Met
Leu	Asp	Pro 275	Ala	Ile	Gly	Glu	Phe 280	Ile	Leu	Val	Asp	Lys 285	Asp	Val	Lys
Ile	Lys 290	Lys	Lys	Gly	Lys	Ile 295	Tyr	Ser	Leu	Asn	Glu 300	Gly	Tyr	Ala	Lys
Asp 305	Phe	Asp	Pro	Ala	Val 310	Thr	Glu	Tyr	Ile	Gln 315	Arg	Lys	Lys	Phe	Pro 320
Pro	Asp	Asn	Ser	Ala 325	Pro	туr	Gly	Ala	Arg 330	Tyr	Val	Gly	Ser	Met 335	Val
Ala	Asp	Val	His 340	Arg	Thr	Leu	Val	Tyr 345	Gly	Gly	Ile	Phe	Leu 350	Tyr	Pro
Ala	Asn	Lys 355	Lys	Ser	Pro	Asn	Gly 360	Lys	Leu	Arg	Leu	Leu 365	Tyr	Glu	Cys
Asn	Pro 370	Met	Ala	Tyr	Val	Met 375	Glu	Lys	Ala	Gly	Gly 380	Met	Ala	Thr	Thr

590

Gly Lys Glu Ala Val Leu Asp Val Ile Pro Thr Asp Ile His Gln Arg 385 390 395 400

Ala Pro Val Ile Leu Gly Ser Pro Asp Asp Val Leu Glu Phe Leu Lys 405 410 415

Val Tyr Glu Lys His Ser Ala Gln 420

<210> 584

<211> 64

<212> PRT

<213> Homo sapiens

<400> 584

Arg Leu Ala Ser Asp Asn Thr Gly Ile Ile Val Asn Asn Val Lys Leu 1 5 10 15

Arg Phe Leu Ala Ser Ile Lys Gly Ala Val Ser Glu Met Ala Leu Ser 20 25 30

Cys Gln Ser Phe Leu Phe Thr Phe Phe Phe Cys Pro Glu Cys Ile Cys 35 40 45

Glu Glu Ser Leu Ile Leu Cys Phe Val Glu Ile Ser Thr Gln Pro Gln 50 60

<210> 585

<211> 194

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 585

Leu Val Leu Lys Xaa Lys Ile Ile Gly Ile Ser Leu Leu Ser Gly Leu 1 5 10

Leu His Arg Ala Phe Ser Val Phe Leu Phe Asn Thr Glu Asn Lys Leu 20 25 30

591

Leu Leu Gln Gln Arg Ser Asp Ala Lys Ile Thr Phe Pro Gly Cys Phe 40 Thr Asn Thr Cys Cys Ser His Pro Leu Ser Asn Pro Ala Glu Leu Glu 55 Glu Ser Asp Ala Leu Gly Val Arg Arg Ala Ala Gln Arg Arg Leu Lys 70 75 Ala Glu Leu Gly Ile Pro Leu Glu Glu Val Pro Pro Glu Glu Ile Asn 90 Tyr Leu Thr Arg Ile His Tyr Lys Ala Gln Ser Asp Gly Ile Trp Gly 105 Glu His Glu Ile Asp Tyr Ile Leu Leu Val Arg Lys Asn Val Thr Leu 120 115 Asn Pro Asp Pro Asn Glu Ile Lys Ser Tyr Cys Tyr Val Ser Lys Glu Glu Leu Lys Glu Leu Leu Lys Lys Ala Ala Ser Gly Glu Ile Lys Ile 145 155 150 Thr Pro Trp Phe Lys Ile Ile Ala Ala Thr Phe Leu Phe Lys Trp Trp 165 170 Asp Asn Leu Asn His Leu Asn Gln Phe Val Asp His Glu Lys Ile Tyr 185

<210> 586

Arg Met

<211> 243

<212> PRT

<213> Homo sapiens

<400> 586

Pro Ala Ala Thr Thr Ser Ser Ser Leu Leu Ala Leu His Arg Val Leu

1 5 10 15

Pro Phe Gln Tyr Val Pro Ser Asp Glu Thr Ile Ser Ser Ala Glu Ser 20 25 30

Phe Ser Thr Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe 35 40 45

592

Pro	His	Leu	Pro	Gly	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Leu	Leu	Phe	Leu
	50					55					60				

- Val Ser Ser Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val
- Ser Pro Glu Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser 85 90 95
- Ser Ala Gly Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val 100 105 110
- Arg Trp Arg Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu 115 120 125
- Lys Asn Gly Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser 130 140
- Ile Leu Glu Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala 145 150 155 160
- Ile Asn Ser Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr 165 170 175
- Gly Ser Lys Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu 180 185 190
- Glu Asn Gly Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly 195 200 205
- Arg Gln Met Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly 210 215 220
- Gln Lys Thr Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val 225 230 235 240

Val His Ser

<210> 587

<211> 366

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
<221> SITE
<222> (120)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (132)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 587
Ser His Cys Leu Lys Lys Asn Leu Ser Lys Arg Ser Leu Gln Phe Leu
                                     10
Gly Lys Gln Ser Ile Leu Ser Val Arg Leu Glu Gln Cys Pro Leu Gln
                                 25
Leu Asn Asn Pro Phe Asn Glu Tyr Ser Lys Phe Xaa Gly Lys Gly His
                                                 45
        35
                             40
Val Gly Thr Thr Ala Thr Lys Lys Ile Asp Val Tyr Leu Pro Leu His
Ser Ser Gln Asp Arg Leu Leu Pro Met Thr Val Val Thr Met Ala Ser
                    70
                                        75
Ala Arg Val Gln Asp Leu Ile Gly Leu Ile Cys Trp Gln Tyr Thr Ser
Glu Asp Gly Ser Arg Ser Ser Met Thr Met Ser Val Pro Thr Ala Cys
                               105
Ile Leu Leu Arg Met Met Gly Xaa Trp Thr Pro Ile Phe Pro Arg Trp
       115
                            120
                                                125
Xaa Pro Met Xaa Pro Ile His Lys Phe Gly Phe Ser Thr Leu Ala Leu
    130
                        135
Val Glu Lys Tyr Ser Ser Pro Gly Leu Thr Ser Lys Glu Ser Leu Phe
                   150
                                       155
Val Arg Ile Asn Ala Ala His Gly Phe Ser Leu Ile Gln Val Asp Asn
               165
Thr Lys Val Thr Met Lys Glu Ile Leu Leu Lys Ala Val Lys Arg Arg
            180
                               185
```

594

Lys Gly Ser Gln Lys Val Ser Gly Ser Arg Ala Asp Gly Val Phe Glu 200 Glu Asp Ser Gln Ile Asp Ile Ala Thr Val Gln Asp Met Leu Ser Ser 215 His His Tyr Lys Ser Phe Lys Val Ser Met Ile His Arg Leu Arg Phe 225 230 235 Thr Thr Asp Val Gln Leu Gly Ile Ser Gly Asp Lys Val Glu Ile Asp Pro Val Thr Asn Gln Lys Ala Ser Thr Lys Phe Trp Ile Lys Gln Lys 265 Pro Ile Ser Ile Asp Ser Asp Leu Leu Cys Ala Cys Asp Leu Ala Glu 275 280 Glu Lys Ser Pro Ser His Ala Ile Phe Lys Leu Thr Tyr Leu Ser Asn 300 295 His Asp Tyr Lys His Leu Tyr Phe Glu Ser Asp Ala Ala Thr Val Asn 310 315 305 Glu Ile Val Leu Lys Val Asn Tyr Ile Leu Glu Ser Arg Ala Ser Thr 325 330 Ala Arg Ala Asp Tyr Phe Ala Gln Lys Gln Arg Lys Leu Asn Arg Arg 345 Thr Ser Phe Ser Phe Gln Lys Glu Lys Lys Ser Gly Gln Gln 355 360

<210> 588

<211> 109

<212> PRT

<213> Homo sapiens

<400> 588

Cys Cys Lys Ser Gly Trp Ala Ile His Ser Leu Ser Glu Leu Thr Glu
1 5 10 15

Leu Glu Leu Ala Val Lys Cys Ser Ala Glu Thr Glu His Leu Thr Asp 20 25 30

Ile Phe Leu Gln Lys Met Val Leu Gly Asn Lys Ile Ile Thr Ile Arg 35 40 45

595

Glu Trp Leu Val Val Ser Thr Val Ala Asn Ala Asn Cys Trp Asn Ser

Leu Tyr Cys Arg Lys Thr Gln Thr Glu Thr Leu Lys Phe Cys Leu Ala 65 70 75 80

Met Cys Phe Trp Tyr Glu Thr Asn Tyr Cys Val Thr Val Gln Val Gly
85 90 95

Asn Asn Ser Phe Asn Trp Val Phe Ser Ile Asn Gly Asn 100 105

<210> 589

<211> 74

<212> PRT

<213> Homo sapiens

<400> 589

Ser Cys Arg Arg Gly Arg Asp His Ser Gly Ser Gly Val Gly Thr Ala 1 5 10 15

Met Ala Gly Ala Leu Val Arg Lys Ala Ala Asp Tyr Val Arg Ser Lys 20 25 30

Asp Phe Arg Asp Tyr Leu Met Ser Thr His Phe Trp Gly Pro Val Ala 35 40 45

Asn Trp Gly Leu Pro Ile Ala Ala Ile Asn Asp Met Lys Lys Ser Pro \cdot 50 55 60

Glu Ile Ile Ser Gly Arg Met Thr Phe Gly
65 70

<210> 590

<211> 125

<212> PRT

<213> Homo sapiens

<400> 590

Val Ile Met Tyr Ile Leu Gln Ser Gly Gly Trp Gln Asp Gly Asp Ile
1 5 10 15

Glu His Asp Cys Ser Leu Ser Leu Phe Ser Ala Tyr Gly Tyr Leu Ser 25 30

Ser Ile Ser Ile Cys Ile Phe Ser Ser Phe His Phe Arg Lys Gln Ser 35 40 45

Cys Gln Leu Lys Gln Lys Lys Lys Lys Lys Lys Ser Ser Arg Gln His 50 55 60

Thr Val Glu Ser Cys Thr His Thr Ser Ala Gln Ala Arg Cys Leu Ala 65 70 75 80

Glu Pro Gln Ser Gly Lys Arg Val Pro Ala Ser Gly Phe Leu Gly Ile 85 90 95

Asn Phe Ile Thr Val Tyr Leu Ser His Cys Gly His Ala Ile Trp Gln 100 105 110

Gly Glu Asn Gly Arg Leu Gly Leu Leu Cys Glu Ala Val 115 120 125

<210> 591

<211> 359

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 591

Pro Val Phe Phe Ser Leu Leu Leu Leu Gln Lys Gln Trp Xaa Cys Leu 1 5 10 15

Leu Asp Ser Lys Trp Ala Lys Ala Lys Lys Gly Glu Glu Ala Leu Phe 20 25 30

Thr Thr Arg Glu Ser Val Val Asp Tyr Cys Asn Arg Leu Leu Lys Lys 35 40 45

Gln Phe Phe His Arg Ala Leu Lys Val Met Lys Met Lys Tyr Asp Lys 50 55 60

· Asp Ile Lys Lys Glu Lys Asp Lys Gly Lys Ala Glu Ser Gly Lys Glu 65 70 75 80

Glu Asp Lys Lys Ser Lys Lys Glu Asn Ile Lys Asp Glu Lys Thr Lys 85 90 95

Lys Glu Lys Glu Lys Lys Lys Asp Gly Glu Lys Glu Glu Ser Lys Lys 100 105 110

Glu Glu Thr Pro Gly Thr Pro Lys Lys Glu Thr Lys Lys Phe

597

		115					120					125			
Lys	Leu 130	Glu	Pro	His	Asp	Asp 135	Gln	Val	Phe	Leu	Asp 140	Gly	Asn	Glu	Val
Туг 145	Val	Trp	Ile	Tyr	Asp 150	Pro	Val	His	Phe	Lys 155	Thr	Phe	Val	Met	Gly 160
Leu	Ile	Leu	Val	Ile 165	Ala	Val	Ile	Ala	Ala 170	Thr	Leu	Phe	Pro	Leu 175	Trp
Pro	Ala	Glu	Met 180	Arg	Val	Gly	Val	Tyr 185	туг	Leu	Ser	Val	Gly 190	Ala	Gly
Суз	Phe	Val 195	Ala	Ser	Ile	Leu	Leu 200	Leu	Ala	Val	Ala	Arg 205	Cys	Ile	Leu
Phe	Leu 210	Ile	Ile	Trp	Leu	Ile 215	Thr	Gly	Gly	Arg	His 220	His	Phe	Trp	Phe
Leu 225	Pro	Asn	Leu	Thr	Ala 230	Asp	Val	Gly	Phe	Ile 235	Asp	Ser	Phe	Arg	Pro 240
Leu	Tyr	Thr	His	Glu 245	Tyr	Lys	Gly	Pro	Lys 250	Ala	Asp	Leu	Lys	Lys 255	Asp
Glu	Lys	Ser	Glu 260	Thr	Lys	Lys	Gln	Gln 265	Lys	Ser	Asp	Ser	Glu 270	Glu	Lys
Ser	Asp	Ser 275	Glu	Lys	Lys	Glu	Asp 280	Glu	Glu	Gly	Lys	Val 285	Gly	Pro	Gly
Asn	His 290	Gly	Thr	Glu	Gly	Ser 295	Gly	Gly	Glu	Arg	His 300	Ser	Asp	Thr	Asp
Ser 305	Asp	Arg	Arg	Glu	Asp 310	Asp	Arg	Ser	Gln	His 315	Ser	Ser	Gly	Asn	Gly 320
Asn	Asp	Phe	Glu	Met 325	Ile	Thr	Lys	Glu	Glu 330	Leu	Glu	Gln	Gln	Thr 335	Asp
Gly	Asp	Сув	Glu 340	Glu	Asp	Glu	Glu	Glu 345	Glu	Asn	Asp	Gly	Glu 350	Thr	Pro
Lys	Ser	Ser	His	Glu	Lys	Ser									

<210> 592 <211> 111 WO 00/55180

<212> PRT

598

PCT/US00/05918

<213> Homo sapiens <220> <221> SITE <222> (27) <223> Xaa equals any of the naturally occurring L-amino acids Val Leu Cys Gln Asn Cys Gln Ser Val Val Glu Tyr Ser Lys Asn Asn 1 5 10 15 Lys Gly Cys Glu Gln Ser Arg Met Val Phe Xaa Leu Tyr Ser Arg Asp 20 25 Ser Gly Pro Pro Pro Ser Thr Val Ser Glu Ala Glu Phe Glu Asp Ile 40 Met Lys Arg Asn Arg Ala Ile Ser Ser Pro Ile Ser Lys Ala Val Ser Gly Ala Ser Ala Gly Asp Tyr Ser Asp Ala Ile Glu Thr Leu Leu Thr Ala Ile Ala Val Ile Lys Gln Ser Arg Val Ala Asn Asp Glu Arg 85 90 Cys Arg Val Leu Ile Ser Ser Leu Lys Asp Cys Leu His Gly His 105 100 <210> 593 <211> 162 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (58) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (85) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (158) <223> Xaa equals any of the naturally occurring L-amino acids

599

<400)> 59	3													
Lys 1	Thr	Gly	Lys	Ile 5	Leu	Ala	Asn	Met	Glu 10	Leu	Pro	Gly	Ser	Ser 15	Let
Asn	Ile	Leu	Thr 20	Val	Tyr	Ala	Arg	Glu 25	His	Thr	Phe	Ser	Phe 30	Glu	Ası
Ser	Ala	Ser 35	Ser	Lys	Pro	Pro	Pro 40	Thr	Ile	Gly	Tyr	His 45	Phe	Tyr	Gly
Pro	Ser 50	Gly	Asp	Ala	Ser	Glu 55	Leu	Trp	Xaa	Lys	Asn 60	Gly	Asp	Leu	Le
Thr 65	Met	Lys	Glu	Туг	His 70	Cys	Leu	Leu	Gln	Leu 75	Leu	Суз	Pro	Asp	Phe 80
Pro	Leu	Glu	Leu	Xaa 85	Gln	Lys	Ala	Ala	Arg 90	Ile	Val	Leu	Met	Asp 95	Asp
Ala	Met	Asp	Cys 100	Leu	Met	Ser	Phe	Ser 105	Asp	Phe	Leu	Phe	Ala 110	Phe	Glr
Ile	Gln	Phe	Tyr	Tyr	Ser	Glu	Phe 120	Leu	Asp	Ser	Val	Ala 125	Ala	Ile	Туз
Glu	Asp 130	Leu	Leu	Ser	Gly	Lys 135	Asn	Pro	Asn	Thr	Val 140	Ile	Gly	Ala	Asp
Leu 145	Val	Gln	Trp	Ala	Ala 150	Pro	Pro	Arg	Pro	Ala 155	Leu	Gly	Xaa	Ala	Arg
His	Ala														

<210> 594 <211> 195 <212> PRT

<213> Homo sapiens

<400> 594

Ser Val Ala Ser Ser Arg Gly Thr Ala Cys Asp Leu Pro Ala Arg Gly
1 5 10 15

Pro Met Leu Pro Ala Ala Ala Arg Pro Leu Trp Gly Pro Cys Leu Gly $20 \ \ 25 \ \ 30$

Leu Arg Ala Ala Ala Phe Arg Leu Ala Arg Arg Gln Val Pro Cys Val 35 40 45

600

Cys Ala Val Arg His Met Arg Ser Ser Gly His Gln Arg Cys Glu Ala 55 Leu Ala Gly Ala Pro Leu Asp Asn Ala Pro Lys Glu Tyr Pro Pro Lys 70 Ile Gln Gln Leu Val Gln Asp Ile Ala Ser Leu Thr Leu Leu Glu Ile 90 Ser Asp Leu Asn Glu Leu Leu Lys Lys Thr Leu Lys Ile Gln Asp Val 105 Gly Leu Val Pro Met Gly Gly Val Met Ser Gly Ala Val Pro Ala Ala 120 Ala Ala Gln Glu Ala Val Glu Glu Asp Ile Pro Ile Ala Lys Glu Arg 130 135 Thr His Phe Thr Val Arg Leu Thr Glu Ala Asn Arg Gly Gln Ser Glu 150 155 Ala Asp Gln Gly Asn Gln Glu Leu His Pro Arg His Gln Pro Arg Pro 165 170 Gly Lys Glu Ala Gly Gly Val Pro Ala Pro Gly Asn Gln Ser Gln Cys 185 Arg Gln Ser 195 <210> 595 <211> 99 <212> PRT <213> Homo sapiens <400> 595 Ala Pro Gln Trp Gln Val His Leu Gln Val Pro Gly Leu Tyr Tyr Phe Thr Tyr His Ala Ser Ser Arg Gly Asn Leu Cys Val Asn Leu Met Arg Gly Arg Glu Arg Ala Gln Lys Val Val Thr Phe Cys Asp Tyr Ala Tyr 40 Asn Thr Phe Gln Val Thr Thr Gly Gly Met Val Leu Lys Leu Glu Gln

55

50

Gly Glu Asn Val Phe Leu Gln Ala Thr Asp Lys Asn Ser Leu Leu Gly 65 70 75 80

Met Glu Gly Ala Asn Ser Ile Phe Ser Gly Phe Leu Leu Phe Pro Asp 85 90 95

Met Glu Ala

<210> 596

<211> 254

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 596

Ala Glu Asp Pro Ala Gly Gly Leu Ala Gly Gln Asp Thr Met Phe Ala 1 5 10 15

Arg Gly Leu Lys Arg Lys Cys Val Gly His Glu Glu Asp Val Gly 20 25 30

Ala Leu Ala Gly Leu Lys Thr Val Ser Ser Tyr Ser Leu Gln Arg Gln 35 40 45

Ser Leu Leu Asp Met Ser Leu Val Lys Leu Gln Leu Cys His Met Leu 50 55 60

Val Glu Pro Asn Leu Cys Arg Ser Val Leu Ile Ala Asn Thr Val Arg 65 70 75 80

Gln Ile Gln Glu Glu Met Thr Gln Asp Gly Thr Trp Arg Thr Val Ala 85 90 95

Pro Gln Ala Ala Glu Arg Ala Pro Xaa Asp Arg Leu Val Ser Thr Glu 100 105 110

Ile Leu Cys Arg Ala Ala Trp Gly Gln Glu Gly Ala His Pro Ala Pro 115 120 125

Gly Leu Gly Asp Gly His Thr Gln Gly Pro Val Ser Asp Leu Cys Pro 130 135 140

Val Thr Ser Ala Gln Ala Pro Arg His Leu Gln Ser Ser Ala Trp Glu 145 150 155 160 Met Asp Gly Pro Arg Glu Asn Arg Gly Ser Phe His Lys Ser Leu Asp

602

170

165 Gln Ile Phe Glu Thr Leu Glu Thr Lys Asn Pro Ser Cys Met Glu Glu 185 Leu Phe Ser Asp Val Asp Ser Pro Tyr Tyr Asp Leu Asp Thr Val Leu 200 Thr Gly Met Met Gly Gly Ala Arg Pro Gly Pro Cys Glu Gly Leu Glu Gly Leu Ala Pro Ala Thr Pro Gly Pro Ser Ser Ser Cys Lys Ser Asp 235 Leu Gly Glu Leu Asp His Val Val Glu Ile Leu Val Glu Thr 245 250 <210> 597 <211> 115 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <400> 597 Cys Ser Met Val Pro Ser Ser Ala Ser Xaa Gln Val Arg Ser His Tyr Val Asp Trp Arg Met Trp Arg Asp Val Lys Arg Arg Lys Met Ala Tyr 20 Glu Tyr Ala Asp Glu Arg Leu Arg Ile Asn Ser Leu Arg Lys Asn Thr Ile Leu Pro Lys Ile Leu Gln Asp Val Ala Asp Glu Glu Ile Ala Ala 55 Leu Pro Arg Asp Ser Cys Pro Val Arg Ile Arg Asn Arg Cys Val Met 70 Thr Ser Arg Pro Arg Gly Val Lys Arg Arg Trp Arg Leu Ser Arg Ile

90

Val Phe Arg His Leu Ala Asp His Gly Gln Leu Ser Gly Ile Gln Arg

603

100 105 110

Ala Thr Trp 115

<210> 598

<211> 99

<212> PRT

<213> Homo sapiens

<400> 598

Ala Arg Pro Cys Met Asn Ser Thr Lys Ala Leu Pro His Gly Arg Glu
1 5 10 15

His Thr Arg Leu Lys Met Leu Ser Tyr Leu Lys Asn Lys Met Cys Lys 20 25 30

Ser Ser Gly Trp His Lys Thr Lys Val Asn Ala Ser Trp Gly Thr Phe 35 40 45

Leu Arg Gly Leu Ala Glu Cys Val Asn Ile Ile Asp Phe Cys Leu Cys 50 55 60

Tyr Met Thr Ser Val Thr Ser Leu Lys Ile Cys Thr Ile Gln Phe Gln 65 70 75 80

Leu Trp Ile Thr Ser Val Asp Leu Cys Glu Gly Phe Tyr Leu Cys Arg 85 90 95

Met Gly Val

<210> 599

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 599

Arg Ala Glu Leu Leu Gly Cys Arg His Tyr Glu Val Ala Arg Leu Leu 1 5 10 15

Lys Glu Leu Pro Arg Gly Arg Thr Phe Thr Leu Lys Leu Thr Glu Pro

604

20 25 30 Arg Lys Ala Phe Asp Met Ile Ser Gln Arg Ser Ala Gly Gly Arg Pro Gly Ser Gly Pro Gln Leu Gly Xaa Gly Arg Gly Thr Leu Arg Leu Arg Ser Arg Gly Pro Ala Thr Val Glu Asp Leu Pro Ser Ala Phe Glu Glu Lys Ala Ile Glu Lys Val Asp Asp Leu Leu Glu Ser Tyr Met Gly Ile 90 Arg Asp Thr Glu Leu Ala Ala Thr Met Val Glu Leu Gly Lys Asp Lys 105 100 Arg Asn Pro Asp Glu Leu Ala Glu Ala Leu Asp Glu Arg Leu Gly Asp 120 Phe Ala Phe Pro Asp Glu Phe Val Phe Asp Val Trp Gly Ala Ile Gly 135 130 Asp Ala Lys Val Gly Arg Tyr <210> 600 <211> 315 <212> PRT <213> Homo sapiens <400> 600 Ser Thr His Ala Ser Gly Ala Ser Gly Gly Ala Gln Val Ala Gly Arg Leu Gly Leu Gly Cys Pro Leu His Leu His Val Phe Ala Val Val Ser 20 25 Ala Met Leu Pro Leu Leu Arg Cys Val Pro Arg Val Leu Gly Ser Ser 40 Val Ala Gly Leu Arg Ala Ala Ala Pro Ala Ser Pro Phe Arg Gln Leu 55 Leu Gln Pro Ala Pro Arg Leu Cys Thr Arg Pro Phe Gly Leu Leu Ser 65 70 Val Arg Ala Gly Ser Glu Arg Arg Pro Gly Leu Leu Arg Pro Arg Gly

90

85

Pro Cys Ala Cys Gly Cys Gly Cys Gly Ser Leu His Thr Asp Gly Asp 105 100 Lys Ala Phe Val Asp Phe Leu Ser Asp Glu Ile Lys Glu Glu Arg Lys 120 Ile Gln Lys His Lys Thr Leu Pro Lys Met Ser Gly Gly Trp Glu Leu 130 135 Glu Leu Asn Gly Thr Glu Ala Lys Leu Val Arg Lys Val Ala Gly Glu Lys Ile Thr Val Thr Phe Asn Ile Asn Asn Ser Ile Pro Pro Thr Phe Asp Gly Glu Glu Pro Ser Gln Gly Gln Lys Val Glu Glu Glu Glu 180 185 Pro Glu Leu Thr Ser Thr Pro Asn Phe Val Val Glu Val Ile Lys Asn 200 Asp Asp Gly Lys Lys Ala Leu Val Leu Asp Cys His Tyr Pro Glu Asp 210 215 Glu Val Gly Gln Glu Asp Glu Ala Glu Ser Asp Ile Phe Ser Ile Arg 230 Glu Val Ser Phe Gln Ser Thr Gly Glu Ser Glu Trp Lys Asp Thr Asn Tyr Thr Leu Asn Thr Asp Ser Leu Asp Trp Ala Leu Tyr Asp His Leu 260 265 Met Asp Phe Leu Ala Asp Arg Gly Val Asp Asn Thr Phe Ala Asp Glu 280 Leu Val Glu Leu Ser Thr Ala Leu Glu His Gln Glu Tyr Ile Thr Phe 290 295 Leu Glu Asp Leu Lys Ser Phe Val Lys Ser Gln 305 310

<210> 601

<211> 167

<212> PRT

<213> Homo sapiens

<400> 601

606

Gly Arg Gly Ser Ala Lys Lys Arg Pro Leu Pro Leu Val Gly Ile Gly Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln 55 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu 90 Lys Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln 100 Ser Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys 120 Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp 130 135 His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val 155

Leu Thr Ala Arg Lys Thr Val 165

<210> 602

<211> 78

<212> PRT

<213> Homo sapiens

<400> 602

Leu Cys Phe Cys Leu Pro Pro Asp Tyr Leu Tyr Cys Gly Phe Lys Tyr
1 5 10 15

Ala Thr Phe Ser Gln His Pro Ile Ile Met Ala Pro Gln Phe Ile Cys
20 25 30

Gly His Pro Gly Phe Arg Ala Arg Ser Leu Ala Leu Tyr Lys Cys Ile 35 40 45

His Lys Ile Ser Glu Leu Val Gly His Glu His Gln Thr Phe Val Pro

607

50 55 60

Leu Ile Trp Leu Cys Leu Glu Lys Thr Ala Asn Gln Lys Glu
65 70 75

<210> 603

<211> 47

<212> PRT

<213> Homo sapiens

<400> 603

Ala His Ala Ser Ala Trp Leu Leu Ser Glu Lys Lys Gly Val Trp Gly
1 5 10 15

Val Phe Tyr Lys Ala Ala Val Ile Gly Thr Arg Leu His Ala Ala Val 20 25 30

Ala Ile Ala Cys Val Val Met Ala Phe Tyr Val Leu Phe Ile Lys 35 40 45

<210> 604

<211> 227

<212> PRT

<213> Homo sapiens

<400> 604

Val Gly Gly Ala Ser Arg Leu Leu Leu Arg Ile Ser Val Asp Leu Met
1 5 10 15

Glu Ala Lys Thr Leu Gly Thr Val Thr Pro Arg Lys Pro Val Leu Ser 20 25 30

Val Ser Ala Arg Lys Ile Lys Asp Asn Ala Ala Asp Trp His Asn Leu 35 40

Ile Leu Lys Trp Glu Thr Leu Asn Asp Ala Gly Phe Thr Thr Ala Asn 50 55 60

Asn Ile Ala Asn Leu Lys Ile Ser Leu Leu Asn Lys Asp Lys Ile Glu 65 70 75 80

Leu Asp Ser Ser Ser Pro Ala Ser Lys Glu Asn Glu Glu Lys Val Cys
85 90 95

Leu Glu Tyr Asn Glu Glu Leu Glu Lys Leu Cys Glu Glu Leu Gln Ala 100 105 110

608

Thr Leu Asp Gly Leu Thr Lys Ile Gln Val Lys Met Glu Lys Leu Ser 115 120 Ser Thr Thr Lys Gly Ile Cys Glu Leu Glu Asn Tyr His Tyr Gly Glu 130 135 Glu Ser Lys Arg Pro Pro Leu Phe His Thr Trp Pro Thr Thr His Phe 155 150 Tyr Glu Val Ser His Lys Leu Leu Glu Met Tyr Arg Lys Glu Leu Leu 165 170 Leu Lys Arg Thr Val Ala Lys Glu Leu Ala His Thr Gly Asp Pro Asp 180 185 Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val Glu 200 Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly His 210 215 220 Arg Ala Leu 225 <210> 605 <211> 119 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (76) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (92) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (104) <223> Xaa equals any of the naturally occurring L-amino acids <400> 605 Asn Glu Ile His Trp Ala Ala Val His Trp Ala Arg Pro Cys Ser Ser 10 Gly Gly Phe His Asp Ala Ser His Ile Gln Cys Phe Pro Ser Lys Pro

609

30 20 25 His Pro Cys Arg Ser Ala Val Leu Pro Gln Gln Ala Phe Ala Leu Ser 40 Gly Ser Leu Leu Trp Phe Leu Ser Glu Ile Leu Phe Ile Phe Phe Leu Ile Thr Ala Leu Leu Arg Tyr Asn Ser His Ala Xaa Gln Phe Thr Tyr Thr Val Tyr Asn Ser Val Val Phe Thr Ile Phe Xaa Val Val Gln Leu 90 Ser Phe Phe Ser Pro Pro Lys Xaa Thr Leu Cys Pro Leu Val Phe Thr 105 100 Leu Phe Ser His Asn Ser Arg 115 <210> 606 <211> 406 <212> PRT <213> Homo sapiens <400> 606 Val Val Arg Leu Gln Arg Leu Phe Pro Gly Arg Thr Met Asp Ser Gln Gly Arg Lys Val Val Val Cys Asp Asn Gly Thr Gly Phe Val Lys Cys Gly Tyr Ala Gly Ser Asn Phe Pro Glu His Ile Phe Pro Ala Leu Val Gly Arg Pro Ile Ile Arg Ser Thr Thr Lys Val Gly Asn Ile Glu Ile 60 55 Lys Asp Leu Met Val Gly Asp Glu Ala Ser Glu Leu Arg Ser Met Leu Glu Val Asn Tyr Pro Met Glu Asn Gly Ile Val Arg Asn Trp Asp Asp 90 Met Lys His Leu Trp Asp Tyr Thr Phe Gly Pro Glu Lys Leu Asn Ile

Asp Thr Arg Asn Cys Lys Ile Leu Leu Thr Glu Pro Pro Met Asn Pro

120

Thr	Lys 130	Asn	Arg	Glu	Lys	11e 135	Val	Glu	Val	Met	Phe 140	GIu	Thr	Tyr	GIn
Phe 145	Ser	Gly	Val	Tyr	Val 150	Ala	Ile	Gln	Ala	Val 155	Leu	Thr	Leu	Tyr	Ala 160
Gln	Gly	Leu	Leu	Thr 165	Gly	Val	Val	Val	Asp 170	Ser	Gly	Asp	Gly	Val 175	Thr
His	Ile	Cys	Pro 180	Val	Tyr	Glu	Gly	Phe 185	Ser	Leu	Pro	His	Leu 190	Thr	Arg
Arg	Leu	Asp 195	Ile	Ala	Gly	Arg	Asp 200	Ile	Thr	Arg	Туг	Leu 205	Ile	Lys	Leu
Leu	Leu 210	Leu	Arg	Gly	Tyr	Ala 215	Phe	Asn	His	Ser	Ala 220	Asp	Phe	Glu	Thr
Val 225	Arg	Met	Ile	Lys	Glu 230	Lys	Leu	Cys	Tyr	Val 235	Gly	Tyr	Asn	Ile	Glu 240
Gln	Glu	Gln	Lys	Leu 245	Ala	Leu	Glu	Thr	Thr 250	Val	Leu	Val	Glu	Ser 255	Tyr
Thr	Leu	Pro	Asp 260	Gly	Arg	Ile	Ile	Lys 265	Val	Gly	Gly	Glu	Arg 270	Phe	Glu
Ala	Pro	Glu 275	Ala	Leu	Phe	Gln	Pro 280	His	Leu	Ile	Asn	Val 285	Glu	Gly	Val
Gly	Val 290	Ala	Glu	Leu	Leu	Phe 295	Asn	Thr	Ile	Gln	Ala 300	Ala	Asp	Ile	Asp
Thr 305	Arg	Ser	Glu	Phe	туr 310	Lys	His	Ile	Val	Leu 315	Ser	Gly	Gly	Ser	Thr 320
Met	Tyr	Pro	Gly	Leu 325	Pro	Ser	Arg	Leu	Glu 330	Arg	Glu	Leu	Lys	Gln 335	Leu
Tyr	Leu	Glu	Arg 340	Val	Leu	Lys	Gly	Asp 345	Val	Glu	Lys	Leu	Ser 350	_	Phe
Lys	Ile	Arg 355	Ile	Glu	Asp	Pro	Pro 360	Arg	Arg	Lys	His	Met 365	Val	Phe	Leu
Gly	Gly 370	Ala	Val	Leu	Ala	Asp 375	Ile	Met	Lys	Asp	Lys 380	Asp	Asn	Phe	Trp
Met 385	Thr	Arg	Gln	Glu	Tyr 390	Gln	Glu	Lys	Gly	Va1 395	Arg	Val	Leu	Glu	Lys 400

Leu Gly Val Thr Val Arg 405

<210> 607

WO 00/55180

<211> 221

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 607

Gly Ser Gly Gly Asn His Ser Val Cys Cys Asp Thr Met Glu Gly Gly
1 5 10 15

Gly Gly Ser Gly Asn Lys Thr Thr Gly Gly Leu Ala Gly Phe Phe Gly
20 25 30

Ala Gly Gly Xaa Gly Tyr Ser His Ala Asp Leu Ala Gly Val Pro Leu 35 40 45

Thr Gly Met Asn Pro Leu Ser Pro Tyr Leu Asn Val Asp Pro Arg Tyr 50 55 60

Leu Val Gln Asp Thr Asp Glu Phe Ile Leu Pro Thr Gly Ala Asn Lys
65 70 75 80

Thr Arg Gly Arg Phe Glu Leu Ala Phe Phe Thr Ile Gly Gly Cys Cys
85 90 95

Met Thr Gly Ala Ala Phe Gly Ala Met Asn Gly Leu Arg Leu Gly Leu 100 105 110

Lys Glu Thr Gln Asn Met Ala Trp Ser Lys Pro Arg Asn Val Gln Ile 115 120 125

Leu Asn Met Val Thr Arg Gln Gly Ala Leu Trp Ala Asn Thr Leu Gly 130 135 140

Ser Leu Ala Leu Leu Tyr Ser Ala Phe Gly Val Ile Ile Glu Lys Thr 145 150 155 160

Arg Gly Ala Glu Asp Asp Leu Asn Thr Val Ala Ala Gly Thr Met Thr 165 170 175

Gly Met Leu Tyr Lys Cys Thr Gly Gly Leu Arg Gly Ile Ala Arg Gly

612

180 185 190

Gly Leu Thr Gly Leu Thr Leu Thr Ser Leu Tyr Ala Leu Tyr Asn Asn 195 200 205

Trp Glu His Met Lys Gly Ser Leu Leu Gln Gln Ser Leu 210 215 220

<210> 608

<211> 77

<212> PRT

<213> Homo sapiens

<400> 608

Gln Asn Ala Gly Ile Thr Gly Val Ser Tyr His Ala His Leu Phe Ile 1 5 10 15

Tyr Leu Phe Ile Tyr Leu Phe Leu Arg Leu Arg Phe Lys Lys Thr 20 25 30

Lys Lys Thr Lys Pro Lys Asn Lys Lys Thr His Gln Leu Asp Ile Leu 35 40 45

Glu Ala Phe Pro Asp Ser Gly Leu Val Ser Arg Leu Ala Phe Lys Arg
50 55 60

Lys Ser Cys Pro Tyr Arg Phe Pro Asp Leu Ser Tyr Pro 65 70 75

<210> 609

<211> 297

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 609

Pro Thr Glu Thr Gly His Trp Thr Gly Ser Ala Met Arg Leu Leu Pro 1 5 10 15

Arg Leu Leu Leu Leu Leu Leu Val Phe Pro Ala Thr Val Leu Phe 20 25 30

Arg Gly Gly Pro Arg Gly Xaa Leu Ala Val Ala Gln Asp Leu Thr Glu

		35					40					45			
Asp	Glu 50	Glu	Thr	Val	Glu	Asp 55	Ser	Ile	Ile	Glu	Asp 60	Glu	Asp	Asp	Glu
Ala 65	Glu	Val	Glu	Glu	Asp 70	Glu	Pro	Thr	Asp	Leu 75	Val	Glu	Asp	Lys	Glu 80
Glu	Glu	Asp	Val	Ser 85	Gly	Glu	Pro	Glu	Ala 90	Ser	Pro	Ser	Ala	Asp 95	Thr
Thr	Ile	Leu	Phe 100	Val	Lys	Gly	Glu	Asp 105	Phe	Pro	Ala	Asn	Asn 110	Ile	Val
Lys	Phe	Leu 115	Val	Gly	Phe	Thr	Asn 120	Lys	Gly	Thr	Glu	Asp 125	Phe	Ile	Val
Glu	Ser 130	Leu	Asp	Ala	Ser	Phe 135	Arg	Tyr	Pro	Gln	Asp 140	Tyr	Gln	Phe	Tyr
Ile 145	Gln	Asn	Phe	Thr	Ala 150	Leu	Pro	Leu	Asn	Thr 155	Val	Val	Pro	Pro	Gln 160
Arg	Gln	Ala	Thr	Phe 165	Glu	Tyr	Ser	Phe	11e 170	Pro	Ala	Glu	Pro	Met 175	Gly
Gly	Arg	Pro	Phe 180	Gly	Leu	Val	ľle	Asn 185	Leu	Asn	Tyr	Lys	Asp 190	Leu	Asn
Gly	Asn	Val 195	Phe	Gln	Asp	Ala	Val 200	Phe	Asn	Gln	Thr	Val 205	Thr	Val	Ile
Glu	Arg 210	Glu	Asp	Gly	Leu	Asp 215	Gly	Glu	Thr	Ile	Phe 220	Met	Tyr	Met	Phe
Leu 225	Ala	Gly	Leu	Gly	Leu 230	Leu	Val	Ile	Val	Gly 235	Leu	His	Gln	Leu	Leu 240
Glu	Ser	Arg	Lys	Arg 245	Lys	Arg	Pro	Ile	Gln 250	Lys	Val	Glu	Met	Gly 255	Thr
Ser	Ser	Gln	Asn 260	Asp	Val	Asp	Met	Ser 265	Trp	Ile	Pro	Gln	Glu 270	Thr	Leu
Asn	Gln	Ile 275	Asn	Lys	Ala	Ser	Pro 280	Arg	Arg	Leu	Pro	Arg 285	Lys	Arg	Ala
Gln	Lys 290	-	Ser	Val	_	Ser 295	-	Glu							

614

<210> 610 <211> 162 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (91) <223> Xaa equals any of the naturally occurring L-amino acids <400> 610 Arg Xaa Thr Arg Pro Cys Glu Asp Gly Ala Leu Gln Gly Val Leu Gly Ser Val Gly Cys Val Gly Leu Gly Ser His Pro Trp Thr Phe Cys His Pro Glu Leu Gln Leu Gly Arg Ser Gly Leu Ala Trp Gly Ala Pro Arg Ser Ser Lys Leu His Leu Ser Pro Lys Ala Asp Val Lys Asn Leu Met 55 Ser Tyr Val Val Thr Lys Thr Lys Ala Ile Asn Gly Lys Tyr His Arg 70 Phe Leu Gly Arg His Phe Pro Arg Phe Tyr Xaa Leu Tyr Thr Ile Phe 90 Met Lys Glu Ser Leu Glu Pro Gly His Ala Ser His Ile Leu Pro Ala 105 Ser Ser Leu Val Glu Thr Ser Phe Glu Asp Ser Tyr Asn Cys Asp Ser 120 Pro Thr Gly Gln Gly Phe Gly Lys Ala Gly Asp Trp Pro Ala Asp Cys 135 Ser Gly Ser Lys Ile Gly Leu Leu Ser Pro Trp Pro Glu Phe Tyr Ala 150 155 160

Tyr Trp

615

<210> 611 <211> 351 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (307) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (335) <223> Xaa equals any of the naturally occurring L-amino acids <400> 611 Glu Met Trp Leu Leu Tyr Leu Leu Val Pro Ala Leu Phe Cys Arg Ala Gly Gly Ser Ile Pro Ile Pro Gln Lys Leu Phe Gly Glu Val Thr Ser 20 25 Pro Leu Phe Pro Lys Pro Tyr Pro Asn Asn Phe Glu Thr Thr Thr Val 40 Ile Thr Val Pro Thr Gly Tyr Arg Val Lys Leu Val Phe Gln Gln Phe Asp Leu Glu Pro Ser Glu Gly Cys Phe Tyr Asp Tyr Val Lys Ile Ser 75 65 70 Ala Asp Lys Lys Ser Leu Gly Arg Phe Cys Gly Gln Leu Gly Ser Pro 90 Leu Gly Asn Pro Pro Gly Lys Lys Glu Phe Met Ser Gln Gly Asn Lys 100 105 Met Leu Leu Thr Phe His Thr Asp Phe Ser Asn Glu Glu Asn Gly Thr 120 Ile Met Phe Tyr Lys Gly Phe Leu Ala Tyr Tyr Gln Ala Val Asp Leu Asp Glu Cys Ala Ser Arg Ser Lys Ser Gly Glu Glu Asp Pro Gln Pro 155 145 150

Gln Cys Gln His Leu Cys His Asn Tyr Val Gly Gly Tyr Phe Cys Ser

Cys Arg Pro Gly Tyr Glu Leu Gln Glu Asp Arg His Ser Cys Gln Ala

616

190 180 185 Glu Cys Ser Ser Glu Leu Tyr Thr Glu Ala Ser Gly Tyr Ile Ser Ser 200 Leu Glu Tyr Pro Arg Ser Tyr Pro Pro Asp Leu Arg Cys Asn Tyr Ser 215 Ile Arg Val Glu Arg Gly Leu Thr Leu His Leu Lys Phe Leu Glu Pro 230 235 Phe Asp Ile Asp Asp His Gln Gln Val His Cys Pro Tyr Asp Gln Leu 245 250 Gln Ile Tyr Ala Asn Gly Lys Asn Ile Gly Glu Phe Cys Gly Lys Gln 260 265 Arg Pro Pro Asp Leu Asp Thr Ser Ser Asn Ala Val Asp Leu Leu Phe 280 Phe Thr Asp Glu Ser Gly Asp Ser Arg Gly Trp Lys Leu Arg Tyr Thr 295 Thr Glu Xaa His Gln Val Pro Pro Ala Gln Asp Pro Arg Arg Ser Ser 305 310 315 Pro Ser Ser Arg Thr Cys Ser Leu Gln Leu Pro Ser Phe Arg Xaa Leu 330 Ile Cys Ile Cys Phe Thr Trp Gln Gly Lys Ala Tyr Pro Val Pro 340 345 <210> 612 <211> 449 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (284) <223> Xaa equals any of the naturally occurring L-amino acids

Ile Tyr Ala Asn Gly Lys Asn Ile Gly Glu Phe Cys Gly Lys Gln Arg

<400> 612

PCT/US00/05918

617

WO 00/55180

1				5					10					15	
Xaa	Pro	Asp	Leu 20	Asp	Thr	Ser	Ser	Asn 25	Ala	Val	Asp	Leu	Leu 30	Phe	Phe
Thr	Asp	Glu 35	Ser	Gly	Asp	Ser	Arg 40	Gly	Trp	Lys	Leu	Arg 45	туг	Thr	Thr
Glu	Ile 50	Ile	Lys	Cys	Pro	Gln 55	Pro	Lys	Thr	Leu	Asp 60	Glu	Phe	Thr	Ile
Ile 65	Gln	Asn	Leu	Gln	Pro 70	Gln	Tyr	Gln	Phe	Arg 75	Asp	Tyr	Phe	Ile	Ala 80
Thr	Cys	Lys	Gln	Gly 85	Tyr	Gln	Leu	Ile	Glu 90	Gly	Asn	Gln	Val	Leu 95	His
Ser	Phe	Thr	Ala 100	Val	Cys	Gln	Asp	Asp 105	Gly	Thr	Trp	His	Arg 110	Ala	Met
Pro	Arg	Cys 115	Lys	Ile	Lys	Asp	Cys 120	Gly	Gln	Pro	Arg	Asn 125	Leu	Pro	Asn
Gly	Asp 130	Phe	Arg	Tyr	Thr	Thr 135	Thr	Met	Gly	Val	Asn 140	Thr	Tyr	Lys	Ala
145	Ile			-	150				-	155	-				160
Ala	Gly	Ser	Arg	Glu 165	Ser	Glu	Gln	Gly	Val 170	Tyr	Thr	Cys	Thr	Ala 175	Gln
	Ile		180		-			185					190	_	
	Val	195					200					205		-	
	Gly 210					215					220				
225	Asn				230					235					240
	Leu			245					250					255	
	Asn		260		•			265	•				270		
Leu	Met	Lys	Leu	Gly	Asn	His	Pro	Ile	Arg	Arg	Xaa	Ser	Val	His	Pro

618

285 280 275 Asp Tyr Arg Gln Asp Glu Ser Tyr Asn Phe Glu Gly Asp Ile Ala Leu 295 300 Leu Glu Leu Glu Asn Ser Val Thr Leu Gly Pro Asn Leu Leu Pro Ile 305 310 315 Cys Leu Pro Asp Asn Asp Thr Phe Tyr Asp Leu Gly Leu Met Gly Tyr 330 325 Val Ser Gly Phe Gly Val Met Glu Glu Lys Ile Ala His Asp Leu Arg Phe Val Arg Leu Pro Val Ala Asn Pro Gln Ala Cys Glu Asn Trp Leu Arg Gly Lys Asn Arg Met Asp Val Phe Ser Gln Asn Met Phe Cys Ala 375 Gly His Pro Ser Leu Lys Gln Asp Ala Cys Gln Gly Asp Ser Gly Gly 385 395 390 Val Phe Ala Val Arg Asp Pro Asn Thr Asp Arg Trp Val Ala Thr Gly 405 410 Ile Val Ser Trp Gly Ile Gly Cys Ser Arg Gly Tyr Gly Phe Tyr Thr 425 Lys Val Leu Asn Tyr Val Asp Trp Ile Lys Lys Glu Met Glu Glu Glu 435 440

Asp

<210> 613

<211> 93

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

WO 00/55180

619

PCT/US00/05918

<400> 613 Asp Pro Lys Tyr Arg Lys Trp Ala Trp Glu Ala Val Glu Ala Leu Glu 5 Asn His Cys Arg Val Asn Gly Gly Tyr Ser Gly Leu Arg Asp Val Tyr Leu Leu His Glu Ser Tyr Asp Asp Val Gln Gln Ser Phe Phe Leu Ala Glu Thr Leu Lys Tyr Leu Tyr Leu Ile Phe Ser Asp Xaa Asp Xaa Leu 55 Pro Leu Glu His Trp Ile Phe Asn Ser Glu Ala His Leu Leu Pro Ile Leu Pro Lys Asp Lys Lys Glu Val Glu Ile Arg Glu Glu 85 <210> 614 <211> 304 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (208) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (229) <223> Xaa equals any of the naturally occurring L-amino acids Ser Leu Asn Pro Met Glu Lys Thr Gln Glu Thr Val Gln Arg Ile Leu Leu Glu Pro Tyr Lys Tyr Leu Leu Gln Leu Pro Gly Lys Gln Val Arg 20 25 Thr Lys Leu Ser Gln Ala Phe Asn His Trp Leu Lys Val Pro Glu Asp

Lys Leu Gln Ile Ile Glu Val Thr Glu Met Leu His Asn Ala Ser

Leu Leu Ile Asp Asp Ile Glu Asp Asn Ser Lys Leu Arg Arg Gly Phe

65					70					75					80
Pro	Val	Ala	His	Ser 85	Ile	Туг	Gly	Ile	Pro 90	Ser	Val	Ile	Asn	Ser 95	Ala
Asn	Tyr	Val	Tyr 100	Phe	Leu	Gly	Leu	Glu 105	Lys	Val	Leu	Thr	Leu 110	Asp	His
Pro	Asp	Ala 115	Val	Lys	Leu	Phe	Thr 120	Arg	Gln	Leu	Leu	Glu 125	Leu	His	Gln
Gly	Gln 130	Gly	Leu	Asp	Ile	Tyr 135	Trp	Arg	Asp	Asn	Tyr 140	Thr	Cys	Pro	Thr
Glu 145	Glu	Glu	Tyr	Lys	Ala 150	Met	Val	Leu	Gln	Lys 155	Thr	Gly	Gly	Leu	Phe 160
Gly	Leu	Ala	Val	Gly 165	Leu	Met	Gln	Leu	Phe 170	Ser	Asp	туг	Lys	Glu 175	Asp
Leu	Lys	Pro	Leu 180	Leu	Asn	Thr	Leu	Gly 185	Leu	Phe	Phe	Gln	Ile 190	Arg	Asp
Asp	Tyr	Ala 195	Asn	Leu	His	Ser	Lys 200	Glu	Tyr	Ser	Glu	Asn 205	Lys	Ser	Xaa
Cys	Glu 210	Asp	Leu	Thr	Glu	Gly 215	Lys	Phe	Ser	Phe	Pro 220	Thr	Ile	His	Ala
Ile 225	Trp	Ser	Arg	Xaa	Glu 230	Ser	Thr	Gln	Val	Gln 235	Asn	Ile	Leu	Arg	Gln 240
Arg	Thr	Glu	Asn	Ile 245	Asp	Ile	Lys	Lys	Tyr 250	Cys	Val	His	туr	Leu 255	Glu
Asp	Val	Gly	Ser 260	Phe	Glu	Tyr	Thr	Arg 265	Asn	Thr	Leu	Lys	Glu 270	Leu	Glu
Ala	Lys	Ala 275	Туr	Lys	Gln	Ile	Asp 280	Ala	Arg	Gly	Gly	Asn 285	Pro	Glu	Leu
Val	Ala 290	Leu	Val	Lys	His	Leu 295	Ser	Lys	Met	Phe	Lys	Glu	Glu	Asn	Glu

621

<212> PRT

WO 00/55180

<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

PCT/US00/05918

<400> 615

Ser Cys Gly Pro Arg Gly Leu Ala Ser Leu Gly Leu Gly Phe Ser Gly 5 10

Arg Cys Asp Asp Gln Asn Lys Gly Arg Ser Arg Arg Ala Arg Gly Ser

Gly Gly Gly Val Phe Arg Gly Ala His Leu Pro Gly Ala Ala Gly Gln 40

Pro Glu Pro His Arg Ala Xaa Leu Ala Ser Arg Arg Leu Thr Arg Lys 55

Leu Tyr Lys Cys Ile Lys Lys Ala Val Lys Gln Lys Gln Ile Arg Arg 75

Gly Val Lys Glu Val Gln Lys Phe Val Asn Lys Gly Glu Lys Gly Ile 90

Met Val Leu Ala Gly Asp Thr Leu Pro Ile Glu Val Tyr Cys His Leu 105

Pro Val Met Cys Glu Asp Arg Asn Leu Pro Tyr Val Tyr Ile Pro Ser 120

Lys Thr Asp Leu Gly Ala Ala Ala Pro Lys Arg Pro Thr Cys Val 130 135

Ile Met Val Lys Pro His Glu Glu Tyr Gln Glu Ala Tyr Asp Glu Cys 150

Leu Glu Glu Val Gln Ser Leu Pro Leu Pro Leu 165 170

<210> 616

<211> 55

<212> PRT

<213> Homo sapiens

<400> 616

Phe Asn Ile Pro Leu His Gln Ile Asn Gln Val Tyr Arg Gln Gly Pro

622

1 5 10 15

Thr Gly Ile His Ile Leu Val Ser Asp Gln Met Val Gln Asn Phe Gln 20 25 30

Asp Glu Ser Cys Phe Leu Phe Ser Thr Val Lys Ala Glu Ser Ser Asp 35 40 45

Gly Ile His Ile Ile Leu Lys
50 55

<210> 617

<211> 143

<212> PRT

<213> Homo sapiens

<400> 617

Gly Val Arg Leu Arg Glu Asp Asp Arg Arg Val Trp Ser Thr Gly Pro 1 5 10 15

Pro Arg Val Trp Gly Ala Asp Arg Ser Thr Leu Arg Ala Val Met Ser 20 25 30

Ala Ser Val Val Ser Val Ile Ser Arg Phe Leu Glu Glu Tyr Leu Ser 35 40 45

Ser Thr Pro Gln Arg Leu Lys Leu Leu Asp Ala Tyr Leu Leu Tyr Ile² 50 55 60

Leu Leu Thr Gly Ala Leu Gln Phe Gly Tyr Cys Leu Leu Val Gly Thr
65 70 75 80

Phe Pro Phe Asn Ser Phe Leu Ser Gly Phe Ile Ser Cys Val Gly Ser 85 90 95

Phe Ile Leu Ala Val Cys Leu Arg Ile Gln Ile Asn Pro Gln Asn Lys
100 105 110

Ala Asp Phe Gln Gly Ile Ser Pro Glu Arg Ala Phe Ala Asp Phe Leu 115 120 125

Phe Ala Ser Thr Ile Leu His Leu Val Val Met Asn Phe Val Gly 130 135 140

<210> 618

<211> 376

<212> PRT

<21.	3 / HC	omo :	sapı	ens											
)> l> s: 2> (2														
<22	3> Xa	aa e	qual	s any	of	the	nati	ıral	Ly o	curi	cing	L-ar	nino	acio	is
)> 6: Ala		Asp	Arg 5	Asp	Cys	Arg	Pro	Ala 10	Ser	Gly	Gly	Asn	Pro 15	Ser
Val	Ile	Arg	Lys 20	Xaa	Tyr	Asn	Leu	Thr 25	Ser	Gln	Asp	Val	Gly 30	Ser	Gly
Thr	Ser	Asn 35	Asn	Ser	Gln	Ala	Cys 40	Ala	Gln	Phe	Leu	Glu 45	Gln	Tyr	Phe
His	Asp 50	Ser	Asp	Leu	Ala	Gln 55	Phe	Met	Arg	Leu	Phe 60	Gly	Gly	Asn	Phe
Ala 65	His	Gln	Ala	Ser	Val 70	Ala	Arg	Val	Val	Gly 75	Gln	Gln	Gly	Arg	Gly 80
Arg	Ala	Gly	Ile	Glu 85	Ala	Ser	Leu	Asp	Val 90	Gln	Tyr	Leu	Met	Ser 95	Ala
Gly	Ala	Asn	Ile 100	Ser	Thr	Trp	Val	Tyr 105	Ser	Ser	Pro	Gly	Arg 110	His	Glu
Gly	Gln	Glu 115	Pro	Phe	Leu	Gln	Trp 120	Leu	Met	Leu	Leu	Ser 125	Asn	Glu	Ser
Ala	Leu 130	Pro	His	Val	His	Thr 135	Val	Ser	Tyr	Gly	Asp 140	Asp	Glu	Asp	Ser
Leu 145	Ser	Ser	Ala	Tyr	Ile 150	Gln	Arg	Val	Asn	Thr 155	Glu	Leu	Met	Lys	Ala 160
Ala	Ala	Arg	Gly	Leu 165	Thr	Leu	Leu	Phe	Ala 170	Ser	Gly	Asp	Ser	Gly 175	Ala
Gly	Суз	Trp	Ser 180	Val	Ser	Gly	Arg	His 185	Gln	Phe	Arg	Pro	Thr 190	Phe	Pro
Ala	Ser	Ser 195	Pro	Туr	Val	Thr	Thr 200	Val	Gly	Gly	Thr	Ser 205	Phe	Gln	Glu
Pro	Phe 210	Leu	Ile	Thr	Asn	Glu 215	Ile	Val	Asp	Tyr	11e 220	Ser	Gly	Gly	Gly
Phe	Ser	Asn	Val	Phe	Pro	Arg	Pro	Ser	Tyr	Gln	Glu	Glu	Ala	Val	Thr

624

225 230 235 240 Lys Phe Leu Ser Ser Pro His Leu Pro Pro Ser Ser Tyr Phe Asn 245 250 Ala Ser Gly Arg Ala Tyr Pro Asp Val Ala Ala Leu Ser Asp Gly Tyr 260 Trp Val Val Ser Asn Arg Val Pro Ile Pro Trp Val Ser Gly Thr Ser 280 Ala Ser Thr Pro Val Phe Gly Gly Ile Leu Ser Leu Ile Asn Glu His 295 Arg Ile Leu Ser Gly Arg Pro Pro Leu Gly Phe Leu Asn Pro Arg Leu 305 315 310 Tyr Gln Gln His Gly Ala Gly Leu Phe Asp Val Thr Arg Gly Cys His 330 Glu Ser Cys Leu Asp Glu Glu Val Glu Gly Gln Gly Phe Cys Ser Gly 345 Pro Gly Trp Asp Pro Val Thr Gly Trp Gly Thr Pro Asn Phe Pro Ala 360 Leu Leu Lys Thr Leu Leu Asn Pro 370 <210> 619 <211> 241 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (214) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (220) <223> Xaa equals any of the naturally occurring L-amino acids <400> 619 Arg Gly Gly Ser Pro Gly Val Arg Ser Ala Asp Thr Pro Gly His Arg Ala Pro Gly His Arg Ala Ala Gly Pro Ser Pro Gln Ser Asn Ala

625

			3.0					25					30		
			20					25					30		
Asp	Ala	Ala 35	Gly	Asn	Pro	Leu	Leu 40	Leu	Ser	His	Thr	Leu 45	Gln	Glu	Leu
Leu	Ala 50	Arg	Asp	Thr	Val	Gln 55	Val	Glu	Leu	Ile	Pro 60	Glu	Lys	Lys	Gly
Leu 65	Phe	Leu	Lys	His	Val 70	Glu	туг	Glu	Val	Ser 75	Ser	Gln	Arg	Phe	Lys 80
Ser	Ser	Val	Tyr	Arg 85	Arg	Tyr	Asn	Asp	Phe 90	Val	Val	Phe	Gln	Glu 95	Met
Leu	Leu	His	Lys 100	Phe	Pro	Tyr	Arg	Met 105	Val	Pro	Ala	Leu	Pro 110	Pro	Lys
Arg	Met	Leu 115	Gly	Ala	Asp	Arg	Glu 120	Phe	Ile	Glu	Ala	Arg 125	Arg	Arg	Ala
Leu	Lys 130	Arg	Phe	Val	Asn	Leu 135	Val	Ala	Arg	His	Pro 140	Leu	Phe	Ser	Glu
Asp 145	Val	Val	Leu	Lys	Leu 150	Phe	Leu	Ser	Phe	Ser 155	Gly	Ser	Asp	Val	Gln 160
Asn	Lys	Leu	Lys	Glu 165	Ser	Ala	Gln	Cys	Val 170	Gly	Asp	Glu	Phe	Leu 175	Asn
Cys	Lys	Leu	Ala 180	Thr	Arg	Ala	Lys	Asp 185	Phe	Leu	Pro	Ala	Asp 190	Ile	Gln
Ala	Gln	Phe 195	Ala	Ile	Ser	Arg	Glu 200	Leu	Ile	Arg	Asn	Ile 205	Tyr	Asn	Ser
Phe	His 210	Lys	Leu	Arg	Xaa	Arg 215	Ala	Glu	Arg	Ile	Xaa 220	Arg	Gly	His	Arg
Gln 225	Cys	Gly	Arg	Ser	Ser 230	His	Ile	Arg	Glu	Gly 235	Ala	Lys	Cys	Asn	Arg 240

Val

<210> 620

<211> 305

<212> PRT

<213> Homo sapiens

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626

PCT/US00/05918

<220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids <400> 620 Thr Phe Asn Glu Arg Ser Gly Arg Ile Glu Arg Ser Asn Arg Ser Leu Pro Cys Ala Xaa Leu Glu Asp Asn Leu Phe Glu Trp His Phe Thr Val 20 25 Arg Gly Pro Pro Asp Ser Asp Phe Asp Gly Gly Val Tyr His Gly Arg Ile Val Leu Pro Pro Glu Tyr Pro Met Lys Pro Pro Ser Ile Ile Leu 55 Leu Thr Ala Asn Gly Arg Phe Glu Val Gly Lys Lys Ile Cys Leu Ser Ile Ser Gly His His Pro Glu Thr Trp Gln Pro Ser Trp Ser Ile Arg 90 Thr Ala Leu Leu Ala Ile Ile Gly Phe Met Pro Thr Lys Gly Glu Gly 100 105 Ala Ile Gly Ser Leu Asp Tyr Thr Pro Glu Glu Arg Arg Ala Leu Ala 120 Lys Lys Ser Gln Asp Phe Cys Cys Glu Gly Cys Gly Ser Ala Met Lys 135 Asp Val Leu Leu Pro Leu Lys Ser Gly Ser Asp Ser Ser Gln Ala Asp 150 Gln Glu Ala Lys Glu Leu Ala Arg Gln Ile Ser Phe Lys Ala Glu Val 170 Asn Ser Ser Gly Lys Thr Ile Ser Glu Ser Asp Leu Asn His Ser Phe 180 185 Ser Leu Thr Asp Leu Gln Asp Asp Ile Pro Thr Thr Phe Gln Gly Ala 200

Thr Ala Ser Thr Ser Tyr Gly Xaa Gln Asn Ser Ser Ala Ala Ser Phe

627

210 215 His Gln Pro Thr Gln Pro Val Ala Lys Asn Thr Ser Met Ser Pro Arg 230 235 Gln Arg Arg Ala Gln Gln Ser Gln Arg Arg Leu Ser Thr Ser Pro 245 250 Asp Val Ile Gln Gly His Gln Pro Arg Asp Asn His Thr Asp His Gly 265 Gly Ser Ala Val Leu Ile Val Ile Leu Thr Leu Ala Leu Ala Ala Leu 280 Ile Phe Arg Arg Ile Tyr Leu Ala Asn Glu Tyr Ile Phe Asp Phe Glu 295 Leu 305 <210> 621 <211> 160 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <400> 621 Asp Pro Arg Asp Ser Arg Ser Gly Leu Gly Arg Leu Xaa Gly Pro Trp 10 Gln Glu Ala Gly Ser Ser Arg Gly Pro Ser Ser Gly Asp Met Ala Gly Val Lys Ala Leu Val Ala Leu Ser Phe Ser Gly Ala Ile Gly Leu Thr 35 40 Phe Leu Met Leu Gly Cys Ala Leu Glu Asp Tyr Gly Val Tyr Trp Pro 55 Leu Phe Val Leu Ile Phe His Ala Ile Ser Pro Ile Pro His Phe Ile 70 75 Ala Lys Arg Val Thr Tyr Asp Ser Asp Ala Thr Ser Ser Ala Cys Arg 85 90

628

Glu Leu Ala Tyr Phe Phe Thr Thr Gly Ile Val Val Ser Ala Phe Gly
100 105 110

Phe Pro Val Ile Leu Ala Arg Val Ala Val Ile Lys Trp Gly Ala Cys 115 120 125

Gly Leu Val Leu Ala Gly Asn Ala Val Ile Phe Leu Thr Ile Gln Gly 130 135 140

Phe Phe Leu Ile Phe Gly Arg Gly Asp Asp Phe Ser Trp Glu Gln Trp 145 150 155 160

<210> 622

<211> 126

<212> PRT

<213> Homo sapiens

<400> 622

Pro Cys Cys Leu Val Glu Thr Arg Thr Ile Asp Leu Asn Ile Ala Met
1 10 15

Val Leu Leu Gln Ser Trp Gln Thr Ala Val Thr Leu Pro Arg Gly Gln
20 25 30

Arg Val Leu Ile Leu Cys Gln Gln Arg Cys Thr Thr Ile Thr Met Val 35 40

Val Thr Tyr Arg Lys Ile Arg Val Ala Pro Ala Ser Cys Met Asp Arg 50 60

Pro Gly Leu Leu Pro Lys Asp Leu Asp Ile His Lys Asp Thr Gly 65 70 75 80

Asp Ile Leu Ala His Gln Leu Ala Glu Ala Glu Ala Glu Gly Tyr His
85 90 95

Thr Glu Tyr Leu Phe Phe Leu Arg His Ile Ile Phe Ile Trp Lys Asp 100 105 110

Phe Ser Ser Cys Asn Leu Arg Gln Gln Ser Lys Arg Leu Glu 115 120 125

<210> 623

<211> 108

629

<212> PRT <213> Homo sapiens

<400> 623

Thr Glu Cys Ser Gly Ser Leu Asn His Cys Phe Ser Phe Glu Ser Arg
1 5 10 15

Ala Ser Cys His Phe His Val Ala Ser Ala Val Ser Pro Pro Thr Pro 20 25 30

Leu Cys Ser Pro Ala Thr Leu Met Ala Gln Asp Lys Ala Gly Lys Pro 35 40 45

Ser Gln Lys His Leu Trp Pro Arg Lys Pro Leu Ser Pro Ser Leu Ser 50 60

His Glu Ala Gln Pro Ser Gln Ala Leu Met Leu Ser Gln Trp Ala Ser 65 70 75 80

His Arg Ala Lys Glu Gly Leu Phe Ser Val Pro Ser Leu Trp Val Arg 85 90 95

Thr Arg Gly His Ala Glu Cys Pro Leu Leu Thr Trp 100 105

<210> 624

<211> 385

<212> PRT

<213> Homo sapiens

<400> 624

Leu Trp Lys Ser Arg Leu Thr Phe Lys Leu Ala Met Ser Arg Val Pro
1 5 10 15

Ser Pro Pro Pro Ala Glu Met Ser Ser Gly Pro Val Ala Glu Ser 20 25 30

Trp Cys Tyr Thr Gln Ile Lys Val Val Lys Phe Ser Tyr Met Trp Thr 35 40 45

Ile Asn Asn Phe Ser Phe Cys Arg Glu Glu Met Gly Glu Val Ile Lys
50 55 60

Ser Ser Thr Phe Ser Ser Gly Ala Asn Asp Lys Leu Lys Trp Cys Leu 65 70 75 80

Arg Val Asn Pro Lys Gly Leu Asp Glu Glu Ser Lys Asp Tyr Leu Ser 85 90 95

Leu	Tyr	Leu	Leu 100	Leu	Val	Ser	Cys	Pro 105	Lys	Ser	Glu	Val	Arg 110	Ala	Lys
Phe	Lys	Phe 115	Ser	Ile	Leu	Asn	Ala 120	Lys	Gly	Glu	Glu	Thr 125	Lys	Ala	Met
Glu	Ser 130	Gln	Arg	Ala	Tyr	Arg 135	Phe	Val	Gln	Gly	Lys 140	Asp	Trp	Gly	Phe
Lys 145	Lys	Phe	Ile	Arg	Arg 150	Asp	Phe	Leu	Leu	Asp 155	Glu	Ala	Asn	Gly	Leu 160
Leu	Pro	Asp	Asp	Lys 165	Leu	Thr	Leu	Phe	Cys 170	Glu	Val	Ser	Val	Val 175	Gln
Asp	Ser	Val	Asn 180	Ile	Ser	Gly	Gln	Asn 185	Thr	Mẹt	Asn	Met	Val 190	Lys	Val
Pro	Glu	Cys 195	Arg	Leu	Ala	Asp	Glu 200	Leu	Gly	Gly	Leu	Trp 205	Glu	Asn	Ser
Arg	Phe 210	Thr	Asp	Cys	Cys	Leu 215	Cys	Val	Ala	Gly	Gln 220	Glu	Phe	Gln	Ala
225					230		Arg			235					240
				245			Lys		250					255	
			260				Glu	265					270		_
		275					Met 280					285			
	290					295	Leu				300		_		
305					310		Asn			315					320
				325			Leu		330					335	
			340				Leu	345					350		
val	Val	Ser 355	His	Pro	His		Val 360	Ala	Glu	Ala	Tyr	Arg 365	Ser	Leu	Ala

Ser Ala Gln Cys Pro Phe Leu Gly Pro Pro Arg Lys Arg Leu Lys Gln 370 380

Ser

385

<210> 625

<211> 390

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (130)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 625

Leu Glu Arg Glu Arg Leu Glu Gln Glu Gln Leu Glu Arg Gln 1 5 15

Glu Arg Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu Arg Leu Glu Arg 20 25 30

Gln Glu Arg Leu Glu Arg Gln Glu Arg Leu Asp Arg Glu Arg Gln Glu 35 40 45

Arg Gln Glu Arg Glu Arg Leu Glu Arg Leu Glu Arg Gln Glu 50 55 60

Arg Glu Arg Gln Glu Gln Leu Glu Arg Glu Gln Leu Glu Trp Glu Arg 65 70 75 80

Glu Arg Arg Ile Ser Ser Ala Ala Ala Pro Ala Ser Val Glu Thr Pro 85 90 95

Leu Asn Ser Val Leu Gly Asp Ser Ser Ala Ser Glu Pro Gly Leu Gln
100 105 110

Ala Ala Ser Gln Pro Ala Glu Thr Pro Ser Gln Xaa Gly Ile Val Leu

		115					120					125			
Gly	Xaa 130	Leu	Ala	Pro	Pro	Pro 135	Pro	Pro	Pro	Leu	Pro 140	Pro	Gly	Pro	Ala
Gln 145	Ala	Ser	Val	Ala	Leu 150	Pro	Pro	Pro	Pro	Glu 155	Lys	Хаа	Ser	Thr	Sei 160
Ser	Thr	Pro	Ile	His 165	Arg	Ala	Ser	Thr	Ala 170	Pro	Pro	Pro	Pro	Pro 175	Leu
Pro	Asn	Gln	Val 180	Pro	Pro	Pro	Pro	Pro 185	Pro	Pro	Pro	Ala	Pro 190	Pro	Let
Pro	Ala	Ser 195	Gly	Phe	Phe	Leu	Ala 200	Ser	Met	Ser	Glu	Asp 205	Asn	Arg	Pro
Leu	Thr 210	Gly	Leu	Ala	Ala	Ala 215	Ile	Ala	Gly	Ala	Lys 220	Leu	Arg	Lys	Va]
Ser 225	Arg	Met	Glu	Asp	Thr 230	Ser	Phe	Pro	Ser	Gly 235	Gly	Asn	Ala	Ile	G13 240
Val	Asn	Ser	Ala	Ser 245	Ser	Lys	Thr	Asp	Thr 250	Gly	Arg	Gly	Asn	Gly 255	Pro
Leu	Pro	Leu	Gly 260	Gly	Ser	Gly	Leu	Met 265	Glu	Glu	Met	Ser	Ala 270	Leu	Leu
Ala	Arg	Arg 275	Arg	Arg	Ile	Ala	Glu 280	Lys	Gly	Ser	Thr	11e 285	Glu	Thr	Glu
Gln	Lys 290	Glu	Asp	Lys	Gly	Glu 295	Asp	Ser	Glu	Pro	Val 300	Thr	Ser	Lys	Ala
Ser 305	Ser	Thr	Ser	Thr	Pro 310	Glu	Pro	Thr	Arg	Lys 315	Pro	Trp	Glu	Arg	Th:
Asn	Thr	Met	Asn	Gly 325	Ser	Lys	Ser	Pro	Val 330	Ile	Ser	Arg	Pro	Lys 335	Ser
Thr	Pro	Leu	Ser 340	Gln	Pro	Ser	Ala	Asn 345	Gly	Val	Gln	Thr	Glu 350	Gly	Let
Asp	Tyr	Asp 355	Arg	Leu	Lys	Gln	Asp 360	Ile	Leu	Asp	Glu	Met 365	Arg	Lys	Glu
Leu	Thr 370	Lys	Leu	Lys	Glu	Glu 375	Leu	Ile	Asp	Ala	Ile 380	Arg	Gln	Glu	Leu
Ser	Lys	Ser	Asn	Thr	Ala										

633

385 390

<210> 626

<211> 138

<212> PRT

<213> Homo sapiens

<400> 626

Ser Phe Gly Ala Leu Val Arg Asp Gly Asn Pro Ala Asn Val Ser Arg 1 5 10 15

Glu Leu Ser Leu Trp Gln Ala Leu Pro Ser Thr Leu Cys Ile Leu Tyr
20 25 30

Phe Leu Arg Leu Pro Asp Arg Ser Glu Met Ala Glu Val Glu Glu 35 40 45

Thr Leu Lys Arg Leu Gln Ser Gln Lys Gly Val Gln Gly Ile Ile Val
50 60

Val Asn Thr Glu Gly Ile Pro Ile Lys Ser Thr Met Asp Asn Pro Thr
65 70 75 80

Thr Thr Gln Tyr Ala Ser Leu Met His Ser Phe Ile Leu Lys Ala Arg 85 90 95

Ser Thr Val Arg Asp Ile Asp Pro Gln Asn Asp Leu Thr Phe Leu Arg 100 105 110

Ile Arg Ser Lys Lys Asn Glu Ile Met Val Ala Pro Asp Lys Asp Tyr 115 120 125

Phe Leu Ile Val Ile Gln Asn Pro Thr Glu 130 135

<210> 627

<211> 469

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 627

Gln Gly Phe Gly Arg Pro Ser Val Tyr His Ala Ala Ile Val Ile Phe

634

15 10 Leu Glu Phe Phe Ala Trp Gly Leu Leu Thr Thr Pro Met Leu Thr Val 25 Leu His Glu Thr Phe Ser Gln His Thr Phe Leu Met Asn Gly Leu Ile Gln Gly Val Lys Gly Leu Leu Ser Phe Leu Ser Ala Pro Leu Ile Gly 55 Ala Leu Ser Asp Val Trp Gly Arg Lys Pro Phe Leu Leu Gly Thr Val 70 Phe Phe Thr Cys Phe Pro Ile Pro Leu Met Arg Ile Ser Pro Trp Trp Tyr Phe Ala Met Ile Ser Val Ser Gly Val Phe Ser Val Thr Phe Ser 105 Val Ile Phe Ala Tyr Val Ala Asp Val Thr Gln Glu His Glu Arg Ser 120 Thr Ala Tyr Gly Trp Val Ser Ala Thr Phe Xaa Ala Ser Leu Val Ser 135 Ser Pro Ala Ile Gly Ala Tyr Leu Ser Ala Ser Tyr Gly Asp Ser Leu 150 155 Val Val Leu Val Ala Thr Val Val Ala Leu Leu Asp Ile Cys Phe Ile 170 165 Leu Val Ala Val Pro Glu Ser Leu Pro Glu Lys Met Arg Pro Val Ser 185 Trp Gly Ala Gln Ile Ser Trp Lys Gln Ala Asp Pro Phe Ala Ser Leu 200 Lys Lys Val Gly Lys Asp Ser Thr Val Leu Leu Ile Cys Ile Thr Val 215 Phe Leu Ser Tyr Leu Pro Glu Ala Gly Gln Tyr Ser Ser Phe Phe Leu 230 235 Tyr Leu Arg Gln Val Ile Gly Phe Gly Ser Val Lys Ile Ala Ala Phe 250 245 Ile Ala Met Val Gly Ile Leu Ser Ile Val Ala Gln Thr Ala Phe Leu 265 Ser Ile Leu Met Arg Ser Leu Gly Asn Lys Asn Thr Val Leu Leu Gly

635

285 280 275 Leu Gly Phe Gln Met Leu Gln Leu Ala Trp Tyr Gly Phe Gly Ser Gln 295 Ala Trp Met Met Trp Ala Ala Gly Thr Val Ala Ala Met Ser Ser Ile 305 310 315 Thr Phe Pro Ala Ile Ser Ala Leu Val Ser Arg Asn Ala Glu Ser Asp 330 Gln Gln Gly Val Ala Gln Gly Ile Ile Thr Gly Ile Arg Gly Leu Cys Asn Gly Leu Gly Pro Ala Leu Tyr Gly Phe Ile Phe Tyr Met Phe His Val Glu Leu Thr Glu Leu Gly Pro Lys Leu Asn Ser Asn Asn Val Pro 375 380 Leu Gln Gly Ala Val Ile Pro Gly Pro Pro Phe Leu Phe Gly Ala Cys 385 390 Ile Val Leu Met Ser Phe Leu Val Ala Leu Phe Ile Pro Glu Tyr Ser 405 410 Lys Ala Ser Gly Val Gln Lys His Ser Asn Ser Ser Ser Gly Ser Leu 425 Thr Asn Thr Pro Glu Arg Gly Ser Asp Glu Asp Ile Glu Pro Leu Leu Gln Asp Ser Ser Ile Trp Glu Leu Ser Ser Phe Glu Glu Pro Gly Asn 455 460 Gln Cys Thr Glu Leu 465 <210> 628 <211> 157 <212> PRT <213> Homo sapiens

Asn Tyr Ile Pro Glu Val Arg Ile Met Ser Ile Pro Asn Leu Arg Tyr

Met Lys Glu Ser Gln Val Leu Leu Thr Leu Thr Asn Pro Val Glu Asn
20 25 30

10

<400> 628

636

 Leu Thr
 His 35
 Val Thr
 Leu Phe 40
 Cys Glu Glu Glu Gly Asp Pro Asp Asp 45
 Pro Asp Asp Asp Asp 45
 Pro Asp Asp Asp Asp Asp Asp 55
 Val Val Val Pro Pro Lys Glu Leu Val Leu 60
 Leu Val Leu 60
 Leu Ala Glu Pro Gln 65
 Pro Pro Hor Glu Asp Asp Asp Asp Asp 70
 Asp Asp Ile Ile Ala Pro 75
 Leu Ala Glu Pro Asp 80
 Pro Pro Hor Glu Asp Asp 85
 Pro Pro Hor Glu Asp Asp 95
 Pro Pro Hor Glu Asp Asp 95
 Pro Hor Glu Asp Asp 85
 Pro Hor Glu Asp 90
 Pro Hor Arg Glu Glu Glu Glu Val 110
 Pro Hor Glu Asp 95
 Pro Hor Glu Glu Cha Pro 125
 Pro Hor Glu Cha Pro 125
 Pro Leu Cha Pro 125
 Pro Leu Cha Pro 125
 Pro Leu Cha Pro 125
 Pro 125

<210> 629

<211> 208

<212> PRT

<213> Homo sapiens

<400> 629

Arg Met Thr Ser Arg Lys Lys Val Leu Leu Lys Val Ile Ile Leu Gly
1 5 10 15

Asp Ser Gly Val Gly Lys Thr Ser Leu Met Asn Gln Tyr Val Asn Lys 20 25 30

Lys Phe Ser Asn Gln Tyr Lys Ala Thr Ile Gly Ala Asp Phe Leu Thr 35 40 45

Lys Glu Val Met Val Asp Asp Arg Leu Val Thr Met Gln Ile Trp Asp 50 55 60

Thr Ala Gly Gln Glu Arg Phe Gln Ser Leu Gly Val Ala Phe Tyr Arg
65 70 75 80

Gly Ala Asp Cys Cys Val Leu Val Phe Asp Val Thr Ala Pro Asn Thr 85 90 95

Phe Lys Thr Leu Asp Ser Trp Arg Asp Glu Phe Leu Ile Gln Ala Ser 100 Arg Asp Romand Arg Asp Pro Glu Asn Phe Pro Phe Val Val Leu Gly Asn Lys Ile 115 Asn Lys 125 Asn Lys 130 Ash Lys 135 Ash

637

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<210> 630

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<211> 159

<212> PRT

<213> Homo sapiens

<400> 630

Thr Ala Met Ser Ser Glu Glu Gly Lys Leu Phe Val Gly Gly Leu Asn
1 10 15

Phe Asn Thr Asp Glu Gln Ala Leu Glu Asp His Phe Ser Ser Phe Gly 20 25 30

Pro Ile Ser Glu Val Val Val Lys Asp Arg Glu Thr Gln Arg Ser 35 40 45

Arg Gly Phe Gly Phe Ile Thr Phe Thr Asn Pro Glu His Ala Ser Val 50 60

Ala Met Arg Ala Met Asn Gly Glu Ser Leu Asp Gly Arg Gln Ile Arg
65 70 75 80

Val Asp His Ala Gly Lys Ser Ala Arg Gly Thr Arg Gly Gly Phe 85 90 95

Gly Ala His Gly Arg Gly Arg Ser Tyr Ser Arg Gly Gly Asp Gln

638

100 105 110

Gly Tyr Gly Ser Gly Arg Tyr Tyr Asp Ser Arg Pro Gly Gly Tyr Gly
115 120 125

Tyr Gly Tyr Gly Arg Ser Arg Asp Tyr Asn Gly Arg Asn Gln Gly Gly
130 135 140

Tyr Asp Arg Tyr Ser Gly Gly Asn Tyr Arg Asp Asn Tyr Asp Asn 145 150 155

<210> 631

<211> 48

<212> PRT

<213> Homo sapiens

<400> 631

Phe Asn Val Phe Tyr Leu Thr Leu Arg Ser Cys Leu Ile Lys Thr Leu 1 5 10 15

As Ser Thr Cys Lys Met Val Ala Gln Cys Tyr Ala Arg Ser Gly Cys 20 25 30

Ser Leu Val Leu Asn Glu His Ile Cys Asn Thr Thr Cys Asn Ser Ile 35 40 45

<210> 632

<211> 679

<212> PRT

<213> Homo sapiens

<400> 632

Arg Ile Trp Val Asn Ile Ser Leu Ser Gly Ile Lys Ile Ile Asp Glu

1 5 10 15

Lys Thr Gly Val Ile Glu His Glu His Pro Val Asn Lys Ile Ser Phe 20 25 30

Ile Ala Arg Asp Val Thr Asp Asn Arg Ala Phe Gly Tyr Val Cys Gly 35 40 45

Gly Glu Gly Gln His Gln Phe Phe Ala Ile Lys Thr Gly Gln Gln Ala 50 55 60

Glu 65	Pro	Leu	Val	Val	Asp 70	Leu	Lys	Asp	Leu	Phe 75	Gln	Val	Ile	Tyr	Asn 80
Val	Lys	Lys	Lys	Glu 85	Glu	Glu	Lys	Lys	Lys 90	Ile	Glu	Glu	Ala	Ser 95	Lys
Ala	Val	Glu	Asn 100	Gly	Ser	Glu	Ala	Leu 105	Met	Ile	Leu	Asp	Asp 110	Gln	Thr
Asn	Lys	Leu 115	Lys	Ser	Gly	Val	Asp 120	Gln	Met	Asp	Leu	Phe 125	Gly	Asp	Met
Ser	Thr 130	Pro	Pro	Asp	Leu	Asn 135	Ser	Pro	Thr	Glu	Ser 140	Lys	Asp	Ile	Leu
145					150				Thr	155					160
				165					Thr 170					175	
			180					185	Glu				190		
		195					200		Asp			205	_	_	
	210			-		215			Ser		220	-			-
225		_		-	230				Ser	235					240
				245					Asp 250					255	
			260				_	265	Gln				270		
		275					280		Pro			285			
	290					295			Phe		300				
305					310				Gly	315					320
val	тÀг	GIN	Asp	125	GIU	ser	ser	val	Gln 330	ser	ser	Pro	HIS	335	ser

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Ile	Ala	Ile	Ile 340	Pro	Pro	Pro	Gln	Ser 345	Thr	Lys	Pro	Gly	350	GIÀ	Arg
Arg	Thr	Ala 355	Lys	Ser	Ser	Ala	Asn 360	Asp	Leu	Leu	Ala	Ser 365	Asp	Ile	Phe
Ala	Pro 370	Pro	Val	Ser	Glu	Pro 375	Ser	Gly	Gln	Ala	Ser 380	Pro	Thr	Gly	Gln
Pro 385	Thr	Ala	Leu	Gln	Pro 390	Asn	Pro	Leu	Asp	Leu 395	Phe	Lys	Thr	Ser	Ala 400
Pro	Ala	Pro	Val	Gly 405	Pro	Leu	Val	Gly	Leu 410	Gly	Gly	Val	Thr	Val 415	Thr
Leu	Pro	Gln	Ala 420	Gly	Pro	Trp	Asn	Thr 425	Ala	Ser	Leu	Val	Phe 430	Asn	Gln
Ser	Pro	Ser 435	Met	Ala	Pro	Gly	Ala 440	Met	Met	Gly	Gly	Gln 445	Pro	Ser	Gly
Phe	Ser 450	Gln	Pro	Val	Ile	Phe 455	Gly	Thr	Ser	Pro	Ala 460	Val	Ser	Gly	Trp
Asn 465	Gln	Pro	Ser	Pro	Phe 470	Ala	Ala	Ser	Thr	Pro 475	Pro	Pro	Val	Pro	Val 480
Val	Trp	Gly	Pro	Ser 485	Ala	Ser	Val	Ala	Pro 490	Asn	Ala	Trp	Ser	Thr 495	Thr
Ser	Pro	Leu	Gly 500	Asn	Pro	Phe	Gln	Ser 505	Asn	Ile	Phe	Pro	Ala 510	Pro	Ala
Val	Ser	Thr 515	Gln	Pro	Pro	Ser	Met 520	His	Ser	Ser	Leu	Leu 525	Val	Thr	Pro
Pro	Gln 530	Pro	Pro	Pro	Arg	Ala 535	Gly	Pro	Pro	Lys	Asp 540	Ile	Ser	Ser	Asp
Ala 545	Phe	Thr	Ala	Leu	Asp 550	Pro	Leu	Gly	Asp	Lys 555	Glu	Ile	Lys	Asp	Val 560
Lys	Glu	Met	Phe	Lys 565	Asp	Phe	Gln	Leu	Arg 570	Gln	Pro	Pro	Ala	Val 575	Pro
Ala	Arg	Lys	Gly 580	Glu	Gln	Thr	Ser	Ser 585	Gly	Thr	Leu	Ser	Ala 590	Phe	Ala
Ser	Tyr	Phe 595	Asn	Ser	Lys	Val	Gly 600	Ile	Pro	Gln	Glu	Asn 605	Ala	Asp	His

641

Asp Asp Phe Asp Ala Asn Gln Leu Leu Asn Lys Ile Asn Glu Pro Pro

Lys Pro Ala Pro Arg Gln Val Ser Leu Pro Val Thr Lys Ser Thr Asp 625 630 Asn Ala Phe Glu Asn Pro Phe Phe Lys Asp Ser Phe Gly Ser Ser Gln 645 650 Ala Ser Val Ala Ser Ser Gln Pro Val Ser Ser Glu Met Tyr Arg Asp 665 Pro Phe Gly Asn Pro Phe Ala 675 <210> 633 <211> 169 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (150) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (159) <223> Xaa equals any of the naturally occurring L-amino acids <400> 633 Xaa Leu Val Asp Pro Pro Gly Leu Xaa Gly Ile Pro Arg Ala Ala Leu Gly His Leu Ala Gly Glu Ala Ala Ala Pro Gly Pro Gly Thr Pro 20 Cys Ala Ser Arg Gly Ala Arg Leu Pro Gly Pro Val Ser Ser Ala Arg

40

642

Asn Pro Ser Thr Val Cys Leu Cys Pro Glu Gln Pro Thr Cys Ser Asn 50 55 60

Ala Asp Ser Arg Ala His Pro Leu Gly Asp Glu Gly Gly Thr Ala Ser 65 70 75 80

Lys Lys Gln Lys Asn Lys Lys Thr Arg Asn Arg Ala Ser Val Ala 85 90 95

Asn Gly Glu Lys Ala Ser Glu Lys Leu Ala Pro Glu Glu Val Pro 100 105 110

Leu Ser Ala Glu Ala Gln Ala Gln Gln Leu Ala Gln Glu Leu Ala Trp 115 120 125

Cys Val Glu Gln Leu Glu Leu Gly Leu Lys Arg Gln Lys Pro Thr Pro 130 135 140

Glu Arg Pro Cys Pro Gly Arg Gly Ser 165

<210> 634

<211> 389

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (175)

<223> Xaa equals any of the naturally occurring L-amino acids

<400	0> 63	3 4													
Xaa 1	Gly	Leu	Суз	Ala 5	Pro	Gln	Pro	Gly	Val 10	Arg	Lys	Ala	Arg	Gly 15	Ala
Gly	Asn	Trp	Arg 20	Val	Gly	Leu	Gln	Thr 25	Gly	Glu	Ala	Ala	Pro 30	Ser	Pro
His	Arg	Asp 35	Leu	Arg	Asp	Thr	Pro 40	Asp	Pro	Arg	Pro	Trp 45	Leu	Ala	Arg
Thr	His 50	Arg	Met	Thr	Thr	Thr 55	Leu	Val	Ser	Ala	Thr 60	Ile	Phe	Asp	Leu
Ser 65	Glu	Val	Leu	Cys	Lys 70	Gly	Asn	Lys	Met	Leu 75	Asn	туr	Ser	Ala	Pro 80
Ser	Ala	Gly	Gly	Cys 85	Leu	Leu	Asp	Arg	Lys 90	Ala	Val	Gly	Thr	Pro 95	Ala
Gly	Gly	Gly	Phe 100	Pro	Arg	Arg	His	Ser 105	Val	Thr	Leu	Pro	Ser 110	Ser	Lys
Phe	His	Gln 115	Asn	Gln	Leu	Leu	Ser 120	Ser	Leu	Lys	Gly	Glu 125	Pro	Ala	Pro
Ala	Leu 130	Ser	Ser	Arg	Asp	Ser 135	Arg	Phe	Arg	Asp	Arg 140	Ser	Phe	Ser	Glu
Gly 145	Ala	Ser	Gly	Cys	Cys 150	Pro	Xaa	Arg	Ser	Ser 155	Pro	Gly	Ala	Ala	Xaa 160
Ser	Asn	Ser	Ser	Arg 165	Tyr	Lys	Thr	Glu	Leu 170	Cys	Arg	Pro	Phe	Xaa 175	Glu
Asn	Gly	Ala	Cys 180	Lys	Tyr	Gly	Asp	Lys 185	Cys	Gln	Phe	Ala	His 190	Gly	Ile
His	Glu	Leu 195	Arg	Ser	Leu	Thr	Arg 200	His	Pro	Lys	Tyr	Lys 205	Thr	Glu	Leu
Cys	Arg 210	Thr	Phe	His	Thr	Ile 215	Gly	Phe	Cys	Pro	Tyr 220	Gly	Pro	Arg	Суя
His 225	Phe	Ile	His	Asn	Ala 230	Glu	Glu	Arg	Arg	Ala 235	Leu	Ala	Gly	Ala	Arg 240
Asp	Leu	Ser	Ala	Asp 245	Arg	Pro	Arg	Leu	Gln 250	His	Ser	Phe	Ser	Phe 255	Ala

Gly Phe Pro Ser Ala Ala Ala Thr Ala Ala Ala Thr Gly Leu Leu Asp

644

260 265 270 Ser Pro Thr Ser Ile Thr Pro Pro Pro Ile Leu Ser Ala Asp Asp Leu 280 Leu Gly Ser Pro Thr Leu Pro Asp Gly Thr Asn Asn Pro Phe Ala Phe 290 300 295 Ser Ser Gln Glu Leu Ala Ser Leu Phe Ala Pro Ser Met Gly Leu Pro Gly Gly Ser Pro Thr Thr Phe Leu Phe Arg Pro Met Ser Glu Ser 330 Pro His Met Phe Asp Ser Pro Pro Ser Pro Gln Asp Ser Leu Ser Asp 340 345 Gln Glu Gly Tyr Leu Ser Ser Ser Ser Ser His Ser Gly Ser Asp 360 Ser Pro Thr Leu Asp Asn Ser Arg Arg Leu Pro Ile Phe Ser Arg Leu 375 Ser Ile Ser Asp Asp 385 <210> 635 <211> 340 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (101) <223> Xaa equals any of the naturally occurring L-amino acids <400> 635 Ser Thr His Ala Ser Gly Ser Leu Tyr Asn Thr Phe Val Ile Glu Glu 10 Lys His Gly Phe Asn Gln Gln Thr Leu Gly Phe Phe Met Lys Asp Ala 20 Val Lys Lys Phe Ile Val Thr Gln Cys Ile Leu Leu Pro Val Ser Ser 40 Leu Leu Leu Tyr Ile Ile Lys Ile Gly Gly Asp Tyr Phe Phe Ile Tyr 55 60

Ala 65	Trp	Leu	Phe	Thr	Leu 70	Val	Val	Ser	Leu	Val 75	Leu	Val	Thr	Ile	Tyr 80
Ala	Asp	Tyr	Ile	Ala 85	Pro	Leu	Phe	Asp	Lys 90	Phe	Thr	Pro	Leu	Pro 95	Glu
Gly	Lys	Leu	Lys 100	Xaa	Glu	Ile	Glu	Val 105	Met	Ala	Lys	Ser	Ile 110	Asp	Phe
Pro	Leu	Thr 115	Lys	Val	Tyr	Val	Val 120	Glu	Gly	Ser	Lys	Arg 125	Ser	Ser	His
Ser	Asn 130	Ala	Tyr	Phe	Tyr	Gly 135	Phe	Phe	Lys	Asn	Lys 140	Arg	Ile	Val	Leu
Phe 145	Asp	Thr	Leu	Leu	Glu 150	Glu	туr	Ser	Val	Leu 155	Asn	Lys	Asp	Ile	Gln 160
Glu	Asp	Ser	Gly	Met 165	Glu	Pro	Arg	Asn	Glu 170	Glu	Glu	Gly	Asn	Ser 175	Glu
Glu	Ile	Lys	Ala 180	Lys	Val	Lys	Asn	Lys 185	Lys	Gln	Gly	Cys	Lys 190	Asn	Glu
Glu	Val	Leu 195	Ala	Val	Leu	Gly	His 200	Glu	Leu	Gly	His	Trp 205	Lys	Leu	Gly
His	Thr 210	Val	Lys	Asn	Ile	Ile 215	Ile	Ser	Gln	Met	Asn 220	Ser	Phe	Leu	Суз
Phe 225	Phe	Leu	Phe	Ala	Val 230	Leu	Ile	Gly	Arg	Lys 235	Glu	Leu	Phe	Ala	Ala 240
Phe	Gly	Phe	Tyr	Asp 245	Ser	Gln	Pro	Thr	Leu 250	Ile	Gly	Leu	Leu	Ile 255	Ile
Phe	Gln	Phe	11e 260	Phe	Ser	Pro	туr	Asn 265	Glu	Val	Leu	Ser	Phe 270	Cys	Leu
Thr	Val	Leu 275	Ser	Arg	Arg	Phe	Glu 280	Phe	Gln	Ala	Asp	Ala 285	Phe	Ala	Lys
Lys	Leu 290	Gly	Lys	Ala	Lys	Asp 295	Leu	Tyr	Ser	Ala	Leu 300	Ile	Lys	Leu	Asn
Lys 305	Asp	Asn	Leu	Gly	Phe 310	Pro	Val	Ser	Asp	Trp 315	Leu	Phe	Ser	Met	Trp 320
His	Tyr	Ser	His	Pro 325	Pro	Leu	Leu	Glu	Arg 330	Leu	Gln	Ala	Leu	Lys 335	Thr

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Met Lys Gln His 340

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<210> 636

<211> 200

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 636

Ala Ser Ile Gly Arg Thr Gly Gly Ser Xaa Xaa Ser Cys Ser Gly Gly
1 5 10 15

Arg Leu Leu Gly Val Glu Phe Pro Ser Ala Pro Arg Val Arg Pro Phe 20 25 30

Glu Arg Ser Ala Pro Ala Pro Ala Thr Ser Leu Leu Gly Ala Met Thr 35 40 45

Thr Thr Thr Phe Lys Gly Val Asp Pro Asn Ser Arg Asn Ser Ser 50 55 60

Arg Val Leu Arg Pro Pro Gly Gly Gly Ser Asn Phe Ser Leu Gly Phe 65 70 75 80

Asp Glu Pro Thr Glu Gln Pro Val Arg Lys Asn Lys Met Ala Ser Asn 85 90 95

Ile Phe Gly Thr Pro Glu Glu Asn Gln Ala Ser Trp Ala Lys Ser Ala 100 105 110

Gly Ala Lys Ser Ser Gly Gly Arg Glu Asp Leu Glu Ser Ser Gly Leu 115 120 125

Gln Arg Arg Asn Ser Ser Glu Ala Ser Ser Gly Asp Phe Leu Asp Leu 130 135 140

Lys Gly Glu Gly Asp Ile His Glu Asn Val Asp Thr Asp Leu Pro Gly 145 150 155 160

647

Ser Leu Gly Gln Ser Glu Glu Lys Pro Val Pro Ala Ala Pro Val Pro 165 170 175

Ser Pro Val Ala Pro Ala Pro Val Pro Ser Arg Arg Asn Pro Pro Gly
180 185 190

Gly Lys Ser Ser Leu Val Leu Gly 195 200

<210> 637

<211> 54

<212> PRT

<213> Homo sapiens

<400> 637

Ser Phe Arg Arg Pro Val Ala Met Leu Cys Ser Gln Ser Asn Phe Gln 1 5 10

Lys Thr Ile Asn Lys Lys Glu Ser Met Phe Lys Leu Lys Trp Asn Leu 20 25 30

Glu Asn Leu Ser Leu Leu Thr Tyr Phe Asn Ala Thr Gly Asn Leu Gly
35 40

Phe Thr Thr Lys Cys Cys 50

<210> 638

<211> 207

<212> PRT

<213> Homo sapiens

<400> 638

Ala Ala Pro Arg Arg His Arg Gly Ala Val Glu Ser Pro Pro Pro Asp 1 5 10 15

Pro Arg Pro Val Ala Arg Pro His Leu Ala Asn Arg Gly Gly Pro Arg
20 25 30

Ser Val Arg Thr Thr Pro Pro Leu Leu Ser Pro Pro Pro Asp His Ala 35 40 45

Pro Gln Leu Arg Lys Met Gly Asn Cys Leu Lys Ser Pro Thr Ser Asp 50 55 60

Asp Ile Ser Leu Leu His Glu Ser Gln Ser Asp Arg Ala Ser Phe Gly 65 70 75 80

Glu Gly Thr Glu Pro Asp Gln Glu Pro Pro Pro Pro Tyr Gln Glu Gln

648

85 90 Val Pro Val Pro Val Tyr His Pro Thr Pro Ser Gln Thr Arg Leu Ala 105 Thr Gln Leu Thr Glu Glu Gln Ile Arg Ile Ala Gln Arg Ile Gly Leu Ile Gln His Leu Pro Lys Gly Val Tyr Asp Pro Gly Arg Asp Gly 135 Ser Glu Lys Lys Ile Arg Glu Cys Val Ile Cys Met Met Asp Phe Val 155 Tyr Gly Asp Pro Ile Arg Phe Leu Pro Cys Met His Ile Tyr His Leu 170 Asp Cys Ile Asp Asp Trp Leu Met Arg Ser Phe Thr Cys Pro Ser Cys 180 185 Met Glu Pro Val Asp Ala Ala Leu Leu Ser Ser Tyr Glu Thr Asn 200 <210> 639 <211> 142 <212> PRT <213> Homo sapiens <400> 639 Gly Gln Val Gln Gly Asn Ser Ser Ile Lys Leu Glu Leu Asp Ala Ser 5 10 Lys Lys Glu Ser Lys Asp His Gln Leu Leu Arg Tyr Leu Leu Asp Lys Asp Glu Lys Asp Leu Arg Ser Thr Pro Asn Leu Ser Leu Asp Asp Val Lys Val Lys Val Glu Lys Lys Glu Gln Met Asp Pro Cys Asn Thr 50 Asn Pro Thr Pro Met Thr Lys Pro Thr Pro Glu Glu Ile Lys Leu Glu 70 75 Ala Gln Ser Gln Phe Thr Ala Asp Leu Asp Gln Phe Asp Gln Leu Leu

649

Pro Thr Leu Glu Lys Ala Ala Gln Leu Pro Gly Leu Cys Glu Thr Asp

Arg Met Asp Gly Ala Val Thr Ser Val Thr Ile Lys Ser Glu Ile Leu 115 120 125

Pro Ala Ser Leu Gln Ser Ala Leu Pro Asp Pro Leu Pro Gly 130 135 140

<210> 640

<211> 106

<212> PRT

<213> Homo sapiens

<400> 640

Asp Asn Arg Arg Thr Phe Leu Pro Arg Leu Phe Val Gly Val Val Pro 1 5 10 15

Gly Thr Gly Phe Gly Glu Leu Val Tyr Asn Gln Gly Leu Ile Leu Lys 20 25 30

Met Ser Phe Phe Ile Leu Leu Phe Phe Lys His Gln Ile Leu Leu Phe 35 40 45

Phe Phe Phe Leu Pro Ser Pro Gln Ile Pro Ser Gln Ile Ile Leu Leu 50 55 60

Thr Thr Ile Pro Thr Gly Arg Gly Glu Leu Lys His Leu Leu Pro Leu 65 70 75 80

Pro Cys Phe Ser Phe Ile Phe Tyr Phe Phe Ala Ser Val Leu Met Phe 85 90 95

Leu His Thr Leu His Leu Tyr Ser Lys Val · 100 105

<210> 641

<211> 645

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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650

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	<pre><221> SITE <222> (65) <223> Xaa equals any of the naturally occurring L-amino acids</pre>														
	•	•													_
<22	3> Xa	aa e	quals	s any	y of	the	nati	ıral	Ly o	ccur	ring	L-ai	nino	acio	is
<40	0> 64	11													
Cys	Ala	Xaa	Arg	Glu	Arg	Leu	Lys	Asn	Pro	Asn	Ala	Pro	Met	Leu	Pro
1				5					10					15	
				_											
Dro	D=0	T	3	T	61.	7	Dha	C1	T	mh →	T 011	e~~	Cln.	λl =	Tla
PLO	PIO	гуу		гуѕ	Glu	ASD	Pne		Lys	THE	Leu	ser		ATA	116
			20					25					30		
Val	Lys	Val	Val	Ile	Pro	Thr	Glu	Arg	Asn	Leu	Leu	Ala	Leu	Ile	His
		35					40					45			
Ara	Met	Tle	Glu	Dhe	Val	Va 1	Ara	Glu	Glv	Pro	Met	Phe	Glu	Ala	Met
**** 9		110	014	1 110	Val		ni 9	O_Lu	01,	110					
	50					55					60				
Xaa	Met	Asn	Arg	Glu	Ile	Asn	Asn	Pro	Met	Phe	Arg	Phe	Leu	Phe	Glu
65					70					75					80
Asn	Gln	Thr	Pro	Ala	His	Val	Tvr	Tvr	Ara	Trp	Lvs	Leu	Tvr	Ser	Ile
				85			-1-	-1-	90		-1-		-1-	95	
				0,5					30					,,	
Leu	Gln	Gly	Asp	Ser	Pro	Thr	Lys	Trp	Arg	Thr	Glu	Asp	Phe	Arg	Met
			100					105					110		
Phe	Lvs	Asn	Glv	Ser	Phe	Trp	Ara	Pro	Pro	Pro	Leu	Asn	Pro	Tvr	Leu
	1 -	115	1		•		120					125		-1-	
		113					120					123			
			_										_,		_
His	Gly	Met	Ser	Glu	Glu	Gln	Glu	Thr	Glu	Ala		Val	Glu	Glu	Pro
	130					135					140				
Ser	Lvs	Lys	Gly	Ala	Leu	Lys	Glu	Glu	Gln	Arq	Asp	Lys	Leu	Glu	Glu
145	•	•	-		150	•				155	•	•			160
	_			_			_	_			-1.	-1			
шe	Leu	Arg	GLY		Thr	Pro	Arg	Lys		Asp	rre	GIÀ	Asp		Met
				165					170					175	
Val	Phe	Cys	Leu	Asn	Asn	Ala	Glu	Ala	Ala	Glu	Glu	Ile	Val	Asp	Cys
			180					185					190	_	_
Tlo	mb~	C1	C	T 011	C	T1-	T	T	mb	D==	T 0	D=0	T	T	71.
TTE	THE		ser	Leu	Ser	TTE		Lys	Thr	PIO	Leu		Lys	гàг	TIE
		195					200					205			
Ala	Arg	Leu	Tyr	Leu	Val	Ser	Asp	Val	Leu	Tyr	Asn	Ser	Ser	Ala	Lys
	210					215					220				
Va 1	د 1 ۵	Aen	Δ1 =	Ser	Tyr	ጥተታም	Ara	Tare	Dhe	Dhe	G111	Thr	Luc	Len	Cva
	714	4911	LITE	1	-	+ J +	n.y	-ys	1 116		GIU	T 111	nys	neu	-
225					230					235					240
_															
Gln	Ile	Phe	Ser	Asp	Leu	Asn	Ala	Thr	Tyr	Arg	Thr	Ile	Gln	Gly	His

WO 00/55180

				245					250					255	
Leu	Gln	Ser	Glu 260	Asn	Phe	Lys	Gln	Arg 265	Val	Met	Thr	Суѕ	Phe 270	Arg	Ala
Trp	Glu	Asp 275	Trp	Ala	Ile	туг	Pro 280	Glu	Pro	Phe	Leu	Ile 285	Lys	Leu	Gln
Asn	Ile 290	Phe	Leu	Gly	Leu	Val 295	Asn	Ile	Ile	Glu	Glu 300	Lys	Glu	Thr	Glu
Asp 305	Val	Pro	Asp	Asp	Leu 310	Asp	Gly	Ala	Pro	Ile 315	Glu	Glu	Glu	Leu	Asp 320
Gly	Ala	Pro	Leu	Glu 325	Asp	Val	Asp	Gly	Ile 330	Pro	Ile	Asp	Ala	Thr 335	Pro
Ile	Asp	Asp	Leu 340	Asp	Gly	Val	Pro	Ile 345	Lys	Ser	Leu	Asp	Asp 350	Asp	Leu
Asp	Gly	Val 355	Pro	Leu	Asp	Ala	Thr 360	Glu	Asp	Ser	Lys	Lys 365	Asn	Glu	Pro
Ile	Phe 370	Lys	Val	Ala	Pro	Ser 375	Lys	Trp	Glu	Ala	Val 380	Asp	Glu	Ser	Glu
Leu 385	Glu	Ala	Gln	Ala	Val 390	Thr	Thr	Ser	Lys	Trp 395	Glu	Leu	Phe	Asp	Gln 400
His	Glu	Glu	Ser	Glu 405	Glu	Glu	Glu	Asn	Gln 410	Asn	Gln	Glu	Glu	Glu 415	Ser
Glu	Asp	Glu	Glu 420	Asp	Thr	Gln	Ser	Ser 425	Lys	Ser	Glu	Glu	His 430	His	Leu
Туr	Ser	Asn 435	Pro	Ile	Lys	Glu	Glu 440	Met	Thr	Glu	Ser	Lys 445	Phe	Ser	Lys
Tyr	Ser 450	Glu	Met	Ser	Glu	Glu 455	Lys	Arg	Ala	Lys	Leu 460	Arg	Glu	Ile	Glu
Leu 465	Lys	Val	Met	Lys	Phe 470	Gln	Asp	Glu	Leu	Glu 475	Ser	Gly-	Lys	Arg	Pro 480
Lys	Lys	Pro	Gly	Gln 485	Ser	Phe	Gln	Glu	Gln 490	Val	Glu	His	Tyr	Arg 495	Asp
Lys	Leu	Leu	Gln 500	Arg	Glu	Lys	Glu	Lys 505	Glu	Leu	Glu	Arg	Glu 510	Arg	Glu
Arg	Asp	Lys	Lys	Asp	Lys	Glu	Lys	Leu	Glu	Ser	Arg	Ser	Lys	Asp	Lys

520 515 525 Lys Glu Lys Asp Glu Cys Thr Pro Thr Arg Lys Glu Arg Lys Arg Arg 535 His Ser Thr Ser Pro Ser Pro Ser Arg Ser Ser Ser Gly Arg Arg Val 545 555 550 Lys Ser Pro Ser Pro Lys Ser Glu Arg Ser Glu Arg Ser Glu Arg Ser 565 570 His Lys Glu Ser Ser Arg Ser Arg Ser Ser His Lys Asp Ser Pro Arg 585 Asp Val Ser Lys Lys Ala Lys Arg Ser Pro Ser Gly Ser Arg Thr Pro 595 600 Lys Arg Ser Arg Arg Ser Arg Ser Pro Lys Lys Ser Gly Lys Lys Ser Arg Ser Gln Ser Arg Ser Pro His Arg Ser His Lys Lys Ser 625 630 635 Lys Lys Asn Lys His 645 <210> 642 <211> 147 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <400> 642 Trp Xaa Gly Val Ile Gly Thr Gly Arg Tyr Arg Val Cys Glu Val Asp Pro Glu Leu Thr Glu Lys Leu Arg Lys Phe Arg Phe Arg Lys Glu Thr

Asp Asn Ala Ala Ile Ile Met Lys Val Asp Lys Asp Arg Gln Met Val

653

35 40 45

Val Leu Glu Glu Glu Phe Gln Asn Ile Ser Pro Glu Glu Leu Lys Met
50 55 60

Glu Leu Pro Glu Arg Gln Pro Arg Phe Val Val Tyr Ser Tyr Lys Tyr 65 70 75 80

Val His Asp Asp Gly Arg Val Ser Tyr Pro Leu Cys Phe Ile Phe Ser 85 90 95

Ser Pro Val Gly Cys Lys Xaa Glu Gln Gln Met Met Tyr Ala Gly Ser 100 105 110

Lys Asn Arg Leu Val Gln Thr Ala Glu Leu Thr Lys Val Phe Glu Ile 115 120 125

Arg Thr Thr Asp Asp Leu Thr Glu Ala Trp Leu Gln Glu Lys Leu Ser 130 140

Phe Phe Arg

<210> 643

<211> 79

<212> PRT

<213> Homo sapiens

<400> 643

Lys Asn Thr Ile Ser Asn Asn Ser Asp Met Ala Glu Val Lys Ser Met 1 5 10 15

Phe Arg Glu Val Leu Pro Lys Gln Gly Pro Leu Phe Val Glu Asp Ile 20 25 30

Met Thr Met Val Leu Cys Lys Pro Lys Leu Leu Pro Leu Lys Ser Leu 35 40 45

Thr Leu Glu Lys Leu Glu Lys Met His Gln Ala Ala Gln Asn Thr Ile
50 60

Arg Gln Glu Met Ala Glu Lys Asp Gln Arg Gln Ile Thr His 65 70 75

<210> 644

<211> 273

<212> PRT

654

<213> Homo sapiens
<220>
<221> SITE

<222> (1) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 644

Xaa Ala Gly Pro Arg Ser Ile Arg Cys Pro Leu Ile Phe Leu Pro Pro 1 5 10 15

Val Ser Gly Thr Ala Asp Val Phe Phe Arg Gln Ile Leu Ala Leu Thr 20 25 30

Gly Trp Gly Tyr Arg Val Ile Ala Leu Gln Tyr Pro Val Tyr Trp Asp 35 40 45

His Leu Glu Phe Cys Asp Gly Phe Arg Lys Leu Leu Asp His Leu Gln
50 60

Leu Asp Lys Val His Leu Phe Gly Ala Ser Leu Gly Gly Phe Leu Ala 65 70 75 80

Gln Lys Phe Ala Glu Tyr Thr His Lys Ser Pro Arg Val His Ser Leu 85 90 95

Ile Leu Cys Asn Ser Phe Ser Asp Thr Ser Ile Phe Asn Gln Thr Trp
100 105 110

Thr Ala Asn Ser Phe Trp Leu Met Pro Ala Phe Met Leu Lys Lys Ile 115 120 125

Val Leu Gly Asn Phe Ser Ser Gly Pro Val Asp Pro Met Met Ala Asp 130 135 140

Ala Ile Asp Phe Met Val Asp Arg Leu Glu Ser Leu Gly Gln Ser Glu 145 150 155 160

Leu Ala Ser Arg Leu Thr Leu Asn Cys Gln Asn Ser Tyr Val Glu Pro 165 170 175

His Lys Ile Arg Asp Ile Pro Val Thr Ile Met Asp Val Phe Asp Gln 180 185 190

Ser Ala Leu Ser Thr Glu Ala Lys Glu Glu Met Tyr Lys Leu Tyr Pro 195 200 205

Asn Ala Arg Arg Ala His Leu Lys Thr Gly Gly Asn Phe Pro Tyr Leu 210 215 220

Cys Arg Ser Ala Glu Val Asn Leu Tyr Val Gln Ile His Leu Leu Gln

655

225 230 235 240

Phe His Gly Thr Lys Tyr Ala Ala Ile Asp Pro Ser Met Val Ser Ala 245 250 255

Glu Glu Leu Glu Val Gln Lys Gly Ser Leu Gly Ile Ser Gln Glu Glu 260 265 270

Gln

<210> 645

<211> 88

<212> PRT

<213> Homo sapiens

<400> 645

Phe Ala Asn Ser Tyr Leu Leu Asn Gly Glu Val Leu Lys Ile Ser Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Lys Phe Lys Ile Gln Thr Pro Ser Ile Glu His Leu His Cys Val 20 25 30

Pro Gly Ser Lys Ile Gly Ala Phe Ile His Ile Val Ser Ile Pro Val 35 40 45

Arg Ser Glu Leu Ser Leu His Leu Lys Leu Glu Glu Thr Cys Ser Glu 50 55 60

Cys Lys Lys Leu Pro Cys Leu Arg Ser Pro Arg Lys Glu Pro Ser Glu 65 70 75 80

Pro Ala Thr Glu Ser Trp Ser Leu 85

<210> 646

<211> 100

<212> PRT

<213> Homo sapiens

<400> 646

Phe Tyr Asn Glu Met Leu Leu Ser Ile Gly Met Leu Met Leu Ser Ala 1 5 10 15

Thr Gln Val Tyr Thr Ile Leu Thr Val Gln Leu Phe Ala Phe Leu Asn 20 25 30

656

Leu Leu Pro Val Glu Ala Asp Ile Leu Ala Tyr Asn Phe Glu Asn Ala 35 40 45

Ser Gln Thr Phe Asp Asp Leu Pro Ala Arg Phe Gly Tyr Arg Leu Pro 50 55 60

Ala Glu Gly Leu Lys Gly Phe Leu Ile Asn Ser Lys Pro Glu Asn Ala 65 70 75 80

Leu Ser Ser Cys 100

<210> 647

<211> 190

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (130)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 647

Met Leu Asp Ile Ser Gly Phe Gln Gly Gly Pro Val Glu Ile Leu Pro
1 5 10 15

Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys Asp Met Leu 20 25 30

Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala Asn Cys Pro 35 40 45

Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val Glu Asp 50 55 60

Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile Asp Phe 65 70 75 80

Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His Cys Gln $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Arg 100 105 110

Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys Gln Arg 115 120 125

657

Arg Xaa Ser Ser Leu Pro Thr Ser Ala Ser Trp Ala Ser Cys Cys Ser 130 140

Pro Pro Trp Leu Cys Ser Thr Glu Ala Pro Pro Pro Pro Pro Cys Ser 165 170 175

Thr Ser Pro Ser Pro Ser Leu Ser Thr Pro Arg Thr Val Arg
180 185 190

<210> 648

<211> 340

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 648

Ser Gln Asp Gln Gly Glu Arg Gly Gly Ala Gly Ala Ala Arg Gln Phe 1 5 10

Leu Leu Val Asn Phe Asn His Ile His Lys Arg Ile Arg Arg Val Ala 20 25 30

Asp Lys Tyr Leu Ser Gly Leu Val Asp Lys Phe Pro His Leu Leu Trp 35 40 45

Ser Gly Thr Val Leu Lys Thr Met Leu Asp Ile Leu Gln Thr Leu Ser 50 60

Leu Ser Leu Ser Ala Asp Ile His Lys Asp Gln Pro Tyr Tyr Asp Ile 65 70 75 80

Pro Asp Ala Pro Tyr Arg Ile Thr Val Pro Asp Thr Tyr Glu Ala Arg 85 90 95

Glu Ser Ile Val Lys Asp Phe Ala Ala Arg Cys Gly Met Ile Leu Gln 100 105 110

Glu Ala Met Lys Trp Ala Pro Thr Val Thr Lys Ser His Leu Gln Glu 115 120 125

Tyr Leu Asn Lys His Xaa Asn Trp Val Ser Gly Leu Ser Gln His Thr

658

130 135 140 Gly Leu Ala Met Ala Thr Glu Ser Ile Leu His Phe Ala Gly Tyr Asn 150 155 Lys Gln Asn Thr Thr Leu Gly Ala Thr Gln Leu Ser Glu Arg Pro Ala 170 165 Cys Val Lys Lys Asp Tyr Ser Asn Phe Met Ala Ser Leu Asn Leu Arg Asn Arg Tyr Ala Gly Glu Val Tyr Gly Met Ile Arg Phe Ser Gly Thr Thr Gly Gln Met Ser Asp Leu Asn Lys Met Met Val Gln Asp Leu His 210 215 Ser Ala Leu Asp Arg Ser His Pro Gln His Tyr Thr Gln Ala Met Phe 230 235 Lys Leu Thr Ala Met Leu Ile Ser Ser Lys Asp Cys Asp Pro Gln Leu 245 250 Leu His His Leu Cys Trp Gly Pro Leu Arg Met Phe Asn Glu His Gly Met Glu Thr Ala Leu Ala Cys Trp Glu Trp Leu Leu Ala Gly Lys Asp 280 Gly Val Glu Val Pro Phe Leu Val Thr Trp His Thr Ile Asp Ala Asp 290 295 Ala Gln Ser Ser Ala Met Cys Cys Ala Gly Arg Pro Arg Thr His Pro 315 Gln Ala Ser Pro Thr Ser Pro Ala Cys Thr Arg Arg Thr Leu Ser Arg 325 330 Arg Ser Thr Gly 340 <210> 649 <211> 214 <212> PRT <213> Homo sapiens

Ala Val Arg Arg Gly Ala Gly Cys Pro Ala Pro Gly Val Arg Ala Arg

10

5

<400> 649

Gly Ala Met Ala His Val Gly Ser Arg Lys Arg Ser Arg Ser Arg Ser 20 25 30

Arg Ser Arg Gly Arg Gly Ser Glu Lys Arg Lys Lys Ser Arg Lys 35 40 45

Asp Thr Ser Arg Asn Cys Ser Ala Ser Thr Ser Gln Gly Arg Lys Ala 50 55 60

Ser Thr Ala Pro Gly Ala Glu Glu Arg Ser Lys Gln Lys Ala Arg Arg 65 70 75 80

Lys Arg Gly Lys Tyr Lys Asp Lys Arg Arg Lys Lys Lys Lys Arg 115 120 125

Lys Lys Leu Lys Lys Lys Gly Lys Glu Lys Ala Glu Ala Gln Gln Val 130 135 140

Glu Ala Leu Pro Gly Pro Ser Leu Asp Gln Trp His Arg Ser Ala Gly 145 150 155 160

Glu Glu Glu Asp Gly Pro Val Leu Thr Asp Glu Gln Lys Ser Arg Ile 165 170 175

Gln Ala Met Lys Pro Met Thr Lys Glu Glu Trp Asp Ala Arg Gln Ser 180 185 190

Ile Ile Arg Lys Trp Trp Thr Leu Arg Arg Gly Ala Pro Gly Leu Leu 195 200 205

Arg Glu Met Ala Arg Ser 210

<210> 650

<211> 401

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (375)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<22	<221> SITE <222> (396)														
<22	2> (396)													
<22	3> X	aa e	qual:	s an	y of	the	nat	ural.	ly o	ccur	ring	L-a	mino	aci	is
<40	0> 6	50													
Gly 1	Arg	Val	Gly	Gln 5	Lys	Ser	Gln	Lys	Pro 10	Arg	Asp	Ser	Ser	Val 15	Gli
Val	Arg	Ser	Asp 20	Trp	Glu	Val	Lys	Glu 25	Glu	Met	Asp	Phe	Pro 30	Gln	Let
Met	Lys	Met 35	Arg	Tyr	Leu	Glu	Val 40	Ser	Glu	Pro	Gln	Asp 45	Ile	Glu	Суя
Cys	Gly 50	Ala	Leu	Glu	Tyr	Tyr 55	Asp	Lys	Ala	Phe	Asp 60	Arg	Ile	Thr	Thr
Arg 65	Ser	Glu	Lys	Pro	Leu 70	Arg	Ser	Ile	Lys	Arg 75	Ile	Phe	His	Thr	Va]
Thr	Thr	Thr	Asp	Asp 85	Pro	Val	Ile	Arg	Lys 90	Leu	Ala	Lys	Thr	Gln 95	Gly
Asn	Val	Phe	Ala 100	Thr	Asp	Ala	Ile	Leu 105	Ala	Thr	Leu	Met	Ser 110	Суѕ	Thr
Arg	Ser	Val 115	Tyr	Ser	Trp	Asp	Ile 120	Val	Val	Gln	Arg	Val 125	Gly	Ser	Lys
Leu	Phe 130	Phe	Asp	Lys	Arg	Asp 135	Asn	Ser	Asp	Phe	Asp 140	Leu	Leu	Thr	Val
Ser 145	Glu	Thr	Ala	Asn	Glu 150	Pro	Pro	Gln	Asp	Glu 155	Gly	Asn	Ser	Phe	Asr 160
Ser	Pro	Arg	Asn	Leu 165	Ala	Met	Glu	Ala	Thr 170	туг	Ile	Asn	His	Asn 175	Ph∈
Ser	Gln	Gln	Cys 180	Leu	Arg	Met	Gly	Lys 185	Glu	Arg	Tyr	Asn	Phe 190	Pro	Asn
Pro	Asn	Pro 195	Phe	Val	Glu	Asp	Asp 200	Met	Asp	Lys	Asn	G1u 205	Ile	Ala	Ser
Val	Ala 210	туг	Arg	Tyr	Arg	Ser 215	Gly	Lys	Leu	Gly	Asp 220	Asp	Ile	Asp	Leu
Ile 225	Val	Arg	Cys	Glu	His 230	Asp	Gly	Val	Met	Thr 235	Gly	Ala	Asn	Gly	Glu 240

661

Val Ser Phe Ile Asn Ile Lys Thr Leu Asn Glu Trp Asp Ser Arg His
245 250 255

Cys Asn Gly Val Asp Trp Arg Gln Lys Leu Asp Ser Gln Arg Gly Ala 260 265 270

Val Ile Ala Thr Glu Leu Lys Asn Asn Ser Tyr Lys Leu Ala Arg Trp 275 280 285

Thr Cys Cys Ala Leu Leu Ala Gly Ser Glu Tyr Leu Lys Leu Gly Tyr 290 295 300

Val Ser Arg Tyr His Val Lys Asp Ser Ser Arg His Val Ile Leu Gly 305 310 315 320

Thr Gln Gln Phe Lys Pro Asn Glu Phe Ala Ser Gln Ile Asn Leu Ser 325 330 335

Val Glu Asn Ala Trp Gly Ile Leu Arg Cys Val Ile Asp Ile Cys Met 340 345 350

Lys Leu Glu Glu Gly Lys Tyr Leu Ile Leu Lys Asp Pro Asn Lys Gln 355 360 365

Val Ile Arg Val Tyr Ser Xaa Pro Asp Gly Thr Phe Ser Ser Asp Glu 370 375 380

Thr

<210> 651

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

PCT/US00/05918

WO 00/55180

<400> 651 Thr Glu Leu His Thr Gly Arg Glu Thr Lys Asn Ile Thr Ser Ile Leu Val Ser Trp Xaa Leu Phe Phe Leu Arg Glu Ser His Ser Val Ala Gly 25 Leu Glu Tyr Ser Gly Xaa Gly Ser Arg Ala His Cys Asn Pro Leu Ala 40 Ser Arg Gly Ser Ser Gln Ser Pro Ala Phe 50 55 <210> 652 <211> 211 <212> PRT <213> Homo sapiens <400> 652 Ser Thr Ser Trp Phe Ser Leu Trp Met Glu Arg Ala Trp Ala Ser Leu Gly Glu Gly Glu Ala Arg Gly Ala Gly Leu Glu Trp Glu Thr Cys Trp 25 Pro Val Gly Leu Thr Cys Pro Ser Val Leu Ser Pro His Ile Leu Leu 40 Pro Ser Ser Ser His Thr His Thr Phe Gln Gly Trp Gly Glu Pro Asp Cys Gln Asp Pro Arg Ser Gly Ala Pro Tyr Ile Pro Gln Ser Gly Ile 70 His Phe Leu Val Pro Gly Met Ala Met Gly Thr Leu Pro Leu Cys Arg 90 Asp Gln Trp Asp Gly Leu Tyr Leu Ser Phe Ser Lys Arg Gly Leu Cys 105 Pro Pro Gly Val Ser Leu Pro Thr Ser Leu Leu Arg Gly Asn Asn Arg 115 120 Arg Met Gly Phe Leu Leu Trp Gly Glu Phe Ile Pro Ser Pro Arg Val 135 Pro Ser His Thr Val Ile Leu Pro Ser Cys Pro Arg Arg Pro Ala Ala 150 155 160

Gly Lys Glu Leu Pro Arg Lys His Ser Leu Gly Gln Val Leu Ala Phe 170 Leu Asn Phe Arg Asp Ser Tyr Arg Lys Glu Gly Asn Lys Glu Phe Ser 180 185 Ser Ala Ala Pro Phe Pro Thr Pro Thr Pro Ser Leu Gln Gly Pro Leu 200 Pro Ala Ser 210 <210> 653 <211> 286 <212> PRT <213> Homo sapiens <400> 653 Ser Arg Arg Pro Pro Ala Ala Cys Ser Arg Leu Leu Arg Glu Pro Ser Arg Pro Gly Ala Pro His Arg Arg Gly Thr Gly Arg Ser Cys Ser Gly Thr Arg Gly Arg Trp Asp Thr Gly Gly Leu Asp Thr Ser Leu Gly Arg 40 Asn Arg Leu Arg Phe Ser Pro Glu Gly Lys Arg Ala Pro Gly Ala Gly 50 Pro Gly Gly Ser Ile Arg Ile Tyr Ser Met Arg Phe Cys Pro Phe Ala Glu Arg Thr Arg Leu Val Leu Lys Ala Lys Gly Ile Arg His Glu Val Ile Asn Ile Asn Leu Lys Asn Lys Pro Glu Trp Phe Phe Lys Lys Asn 105 Pro Phe Gly Leu Val Pro Val Leu Glu Asn Ser Gln Gly Gln Leu Ile 120 Tyr Glu Ser Ala Ile Thr Cys Glu Tyr Leu Asp Glu Ala Tyr Pro Gly 130 135 Lys Lys Leu Leu Pro Asp Asp Pro Tyr Glu Lys Ala Cys Gln Lys Met

Ile Leu Glu Leu Phe Ser Lys Val Pro Ser Leu Val Gly Ser Phe Ile

664

165 170 Arg Ser Gln Asn Lys Glu Asp Tyr Ala Gly Leu Lys Glu Glu Phe Arg 185 Lys Glu Phe Thr Lys Leu Glu Glu Val Leu Thr Asn Lys Lys Thr Thr Phe Phe Gly Gly Asn Ser Ile Ser Met Ile Asp Tyr Leu Ile Trp Pro 215 Trp Phe Glu Arg Leu Glu Ala Met Lys Leu Asn Glu Cys Val Asp His 235 230 Thr Pro Lys Leu Lys Leu Trp Met Ala Ala Met Lys Glu Asp Pro Thr 245 250 Val Ser Ala Leu Leu Thr Ser Glu Lys Asp Trp Gln Gly Phe Leu Glu 265 Leu Tyr Leu Gln Asn Ser Pro Glu Ala Cys Asp Tyr Gly Leu 280 <210> 654 <211> 92 <212> PRT <213> Homo sapiens Ser Gln Ala Arg Gly Gln Gly Gln Gly Arg Ser Trp Gly Ala Gly Ala Leu Gly Gln Ser Gly Pro Pro Pro Ala Ala Cys Pro Val Gly Leu Trp Lys Gly Ala Leu Gly Ser Arg Cys Trp Glu Pro Glu Leu Gly Arg 40 Ala Trp Ala Gly Gly Val Pro Pro Ser His Lys Gly Trp Ala Glu Thr Gln Leu Ser Ala Ala Trp Arg Phe Pro Phe Trp Gly Gly Leu Arg Ser 70 75 Cys His Leu Val Leu Cys Pro His Arg Asn Gln Arg 85

<213 <213	<210> 655 <211> 281 <212> PRT <213> Homo sapiens														
<400> 655															
			Ala	Pro 5	Thr	Ala	Thr	Ala	Gly 10	Thr	Leu	Ala	Ala	Ser 15	Glu
Gly	Arg	Trp	Lys 20	Ser	Met	Arg	Lys	Ser 25	Pro	Leu	Gly	Gly	Gly 30	Gly	Gly
Ser	Gly	Ala 35	Ser	Ser	Gln	Ala	Ala 40	Суз	Leu	Lys	Gln	Ile 45	Leu	Leu	Leu
Gln	Leu 50	Asp	Leu	Ile	Glu	Gln 55	Gln	Gln	Gln	Gln	Leu 60	Gln	Ala	Lys	Glu
Lys 65	Glu	Ile	Glu	Glu	Leu 70	Lys	Ser	Glu	Arg	Asp 75	Thr	Leu	Leu	Ala	Arg 80
Ile	Glu	Arg	Met	Glu 85	Arg	Arg	Met	Gln	Leu 90	Val	Lys	Lys	Asp	Asn 95	Glu
Lys	Glu	Arg	His 100	Lys	Leu	Phe	Gln	Gly 105	Tyr	Glu	Thr	Glu	Glu 110	Arg	Glu
Glu	Thr	Glu 115	Leu	Ser	Glu	Lys	Ile 120	Lys	Leu	Glu	Суѕ	Gln 125	Pro	Glu	Leu
Ser	Glu 130	Thr	Ser	Gln	Thr	Leu 135	Pro	Pro	Lys	Pro	Phe 140	Ser	Суз	Gly	Arg
Ser 145	Gly	Lys	Gly	His	Lys 150	Arg	Lys	Ser	Pro	Phe 155	Gly	Ser	Thr	Glu	Arg 160
Lys	Thr	Pro	Val	Lys 165	Lys	Leu	Ala	Pro	Glu 170	Phe	Ser	Lys	Val	Lys 175	Thr
Lys	Thr	Pro	Lys 180	His	Ser	Pro	Ile	Lys 185	Glu	Glu	Pro	Cys	Gly 190	Ser	Leu
Ser	Glu	Thr 195	Val	Cys	Lys	Arg	Glu 200	Leu	Arg	Ser	Gln	Glu 205	Thr	Pro	Glu
Lys	Pro 210	Arg	Ser	Ser	Val	Asp 215	Thr	Pro	Pro	Arg	Leu 220	Ser	Thr	Pro	Gln
Lys 225	Gly	Pro	Ser	Thr	His 230	Pro	Lys	Glu	Lys	Ala 235	Phe	Ser	Ser	Glu	11e 240

Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr Leu Cys Arg Trp
245 250 255

His Gln Pro Pro Pro Ser Pro Leu Pro Leu Arg Glu Ser Ser Pro Lys 260 265 270

Lys Glu Glu Thr Val Ala Ser Lys Ala 275 280

<210> 656

<211> 258

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (185)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 656

Glu Lys Lys Leu Ser Cys Leu Gln Ala Ala Val Thr Ala Ser Arg Thr 1 5 10 15

Leu Ser Ala Leu Leu Pro Thr Cys Thr Pro Gly Leu Ser Ile Pro Val 20 25 30

Pro Pro Asp Lys Arg Gly Gln Val Ser Gln Glu Leu Pro Pro Cys 35 40 45

Ser Thr Ala Lys Lys Thr Pro Phe His Asp Phe Pro Pro Arg. Pro Arg 50 60

Ser Tyr Leu Pro Thr Pro Leu Ser Glu Ser Pro Gly Thr His Arg Gly 65 70 75 80

Ala His His Ile Pro Leu Ser Thr Leu Pro Ala Ser Pro Thr Cys His
85 90 95

Pro Leu Pro Cys Pro Ser Pro Thr Pro Gln Leu Gln Glu Trp Lys Lys
100 105 110

Ser Pro Arg Ser Ser Gly Ser Pro Ser Pro His Pro Glu Leu Arg Leu 115 120 125

Gly Tyr Leu Leu Gln His Pro Cys Gln Asp Phe Ser Thr Leu Leu His 130 135 140

Thr Ser Arg Asp Arg Glu Leu Thr Thr Ser Gln Gly Ser Leu Leu Pro 145 150 155 160

667

Leu Asp Cys Ser Asp Phe Ser Ile Ser Leu Ile His Arg Arg Gly Phe
165 170 175

Cys Phe Ser Val Ala Leu Ser Met Xaa Ser His Leu Pro Thr Leu Leu 180 185 190

Pro Gly Val Leu Arg Ser His Ile Asp Ser Pro Glu Pro Ser Ser Leu 195 200 205

Gln Ala Lys Glu Ser Arg Arg His Arg Gly His Phe Cys Cys Asn Lys 210 215 220

Val Ser Cys Leu Phe Thr Val Arg Thr Phe Leu Ser Ile Pro Ser Arg 225 230 235 240

Leu Gly Gln Gly Asp Ser Gln Met His Thr His Lys Tyr Ser Val Leu
245 250 255

Lys Leu

<210> 657

<211> 485

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (145)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 657

Ser Leu Ala Met Ala Ser Phe Ser Ala Glu Thr Asn Ser Thr Asp Leu

1 5 10 15

Leu Ser Gln Pro Trp Asn Glu Pro Pro Val Ile Leu Ser Met Val Ile
20 25 30

Leu Ser Leu Thr Phe Leu Leu Gly Leu Pro Gly Asn Gly Leu Val Leu 35 40 45

Trp Val Ala Gly Leu Lys Met Gln Arg Thr Val Asn Thr Ile Trp Phe 50 60

Leu His Leu Thr Leu Ala Asp Leu Leu Cys Cys Leu Ser Leu Pro Phe 65 70 75 80

Ser Leu Ala His Leu Ala Leu Gln Gly Gln Trp Pro Tyr Gly Arg Phe

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				85					90					95	
Leu	Cys	Lys	Leu 100	Ile	Pro	Ser	Ile	Ile 105	Val	Leu	Asn	Met	Phe 110	Ala	Ser
Val	Phe	Leu 115	Leu	Thr	Ala	Ile	Ser 120	Leu	Asp	Arg	Cys	Leu 125	Val	Val	Phe
Lys	Pro 130	Ile	Trp	Cys	Gln	Asn 135	His	Arg	Asn	Val	Gly 140	Met	Ala	Суѕ	Ser
Xaa 145	Cys	Gly	Cys	Ile	Trp 150	Val	Val	Ala	Cys	Val 155	Met	Cys	Ile	Pro	Va l 160
Phe	Val	туг	Arg	Glu 165	Ile	Phe	Thr	Thr	Asp 170	Asn	His	Asn	Arg	Cys 175	Gly
Tyr	Lys	Phe	Gly 180	Leu	Ser	Ser	Ser	Leu 185	Asp	Tyr	Pro	Asp	Phe 190	Tyŗ	Gly
Asp	Pro	Leu 195	Glu	Asn	Arg	Ser	Leu 200	Glu	Asn	Ile	Val	Gln 205	Pro	Pro	Gly
Glu	Met 210	Asn	Asp	Arg	Leu	Asp 215	Pro	Ser	Ser	Phe	Gln 220	Thr	Asn	Asp	His
Pro 225	Trp	Thr	Val	Pro	Thr 230	Val	Phe	Gln	Pro	Gln 235	Thr	Phe	Gln	Arg	Pro 240
Ser	Ala	Asp	Ser	Leu 245	Pro	Arg	Gly	Ser	Ala 250	Arg	Leu	Thr	Ser	Gln 255	Asn
Leu	Tyr	Ser	Asn 260	Val	Phe	Lys	Pro	Ala 265	Asp	Val	Val	Ser	Pro 270	Lys	Ile
Pro	Ser	Gly 275	Phe	Pro	Ile	Glu	Asp 280	His	Glu	Thr	Ser	Pro 285	Leu	Asp	Asn
Ser	Asp 290		Phe	Leu	Ser	Thr 295		Leu	Lys	Leu	Phe 300	Pro	Ser	Ala	Ser
Ser 305	Asn	Ser	Phe	Tyr	Glu 310	Ser	Glu	Leu	Pro	Gln 315	Gly	Phe	Gln	Asp	Tyr 320
Tyr	Asn	Leu	Gly	Gln 325	Phe	Thr	Asp	Asp	Asp 330	Gln	Val	Pro	Thr	Pro 335	Leu
Val	Ala	Ile	Thr 340	Ile	Thr	Arg	Leu	Val 345	Val	Gly	Phe	Leu	Leu 350	Pro	Ser
Val	Ile	Met	Ile	Ala	Cys	Tyr	Ser	Phe	Ile	Val	Phe	Arg	Met	Gln	Arg

355 360 365 Gly Arg Phe Ala Lys Ser Gln Ser Lys Thr Phe Arg Val Ala Val Val 375 380 Val Val Ala Val Phe Leu Val Cys Trp Thr Pro Tyr His Ile Phe Gly 395 Val Leu Ser Leu Leu Thr Asp Pro Glu Thr Pro Leu Gly Lys Thr Leu Met Ser Trp Asp His Val Cys Ile Ala Leu Ala Ser Ala Asn Ser Cys 420 425 Phe Asn Pro Phe Leu Tyr Ala Leu Leu Gly Lys Asp Phe Arg Lys Lys 440 Ala Arg Gln Ser Ile Gln Gly Ile Leu Glu Ala Ala Phe Ser Glu Glu 455 Leu Thr Arg Ser Thr His Cys Pro Ser Asn Asn Val Ile Ser Glu Arg 465 470 475 Asn Ser Thr Thr Val 485 <210> 658 <211> 59 <212> PRT <213> Homo sapiens <400> 658

Gln Arg Tyr Val Ile Asn Pro Asn Ala Gln Pro Asn Cys Tyr Val Ile 1 5 10 15

Pro Ile Pro Ile Leu Cys Asn Ile Cys Ser Phe Leu Glu Arg Gly Tyr.
20 25 30

Val Ser Arg Ala Gln Trp Leu Thr Pro Val Ile Pro Ala Leu Trp Glu 35 40

Ala Glu Ala Gly Gly Leu Pro Glu Val Arg Ser 50

<210> 659

<211> 333

<212> PRT

<213> Homo	sapiens				
<220> <221> SITE <222> (186) <223> Xaa ee	quals any of	the natural	ly occurring	L-amino	acids
<220> <221> SITE					
<222> (260)	quals anv of	the natural	ly occurring	L-amino	acids
<400> 659	,,,,		-,		
	Arg Asp Phe 5	Phe Met Arg	Met Lys Cys 10	Thr Val	Thr Asn 15
Arg Gly Arg	Thr Val Asn 20	Leu Lys Ser 25	Ala Thr Trp	Lys Val 30	Leu His
Cys Thr Gly	Gln Val Lys	Val Tyr Asn 40	Asn Cys Pro	Pro His 45	Asn Ser
Leu Cys Gly 50	Tyr Lys Glu	Pro Leu Leu 55	Ser Cys Leu 60	Ile Ile	Met Cys
Glu Pro Ile 65	Gln His Pro	Ser His Met	Asp Ile Pro 75	Leu Asp	Ser Lys 80
Thr Phe Leu	Ser Arg His 85	Ser Met Asp	Met Lys Phe 90	Thr Tyr	Cys Asp 95
Asp Arg Ile	Thr Glu Leu 100	Ile Gly Tyr 105	His Pro Glu	Glu Leu 110	Leu Gly
Arg Ser Ala 115	Tyr Glu Phe	Tyr His Ala 120	Leu Asp Ser	Glu Asn 125	Met Thr
Lys Ser His 130	Gln Asn Leu	Cys Thr Lys	Gly Gln Val	Val Ser	Gly Gln
Tyr Arg Met 145	Leu Ala Lys 150	His Gly Gly	Tyr Val Trp 155	Leu Glu	Thr Gln 160
Gly Thr Val	Ile Tyr Asn 165	Pro Arg Asn	Leu Gln Pro 170	Gln Cys	Ile Met 175
Cys Val Asn	Tyr Val Leu 180	Ser Glu Ile 185	Xaa Lys Asn	Asp Val	Val Phe
Ser Met Asp 195	Gln Thr Glu	Ser Leu Phe 200	Lys Pro His	Leu Met 205	Ala Met

671

Asn Ser Ile Phe Asp Ser Ser Gly Lys Gly Ala Val Ser Glu Lys Ser 215 Asn Phe Leu Phe Thr Lys Leu Lys Glu Glu Pro Glu Glu Leu Ala Gln 230 235 Leu Ala Pro Thr Pro Gly Asp Ala Ile Ile Ser Leu Asp Phe Gly Asn 250 Gln Asn Phe Xaa Glu Ser Ser Ala Tyr Gly Lys Ala Ile Leu Pro Pro 265 Ser Gln Pro Trp Ala Thr Glu Leu Arg Ser His Ser Thr Gln Ser Glu 280 Leu Gly Ala Cys Leu Pro Ser Pro Cys Pro Arg Gln Leu Pro Arg Ala 295 Ala Pro Pro Pro Val Pro Pro Ala Ala Ala Ala Ala Pro Arg Pro 310 Ile Ala Leu Lys Thr Ile Thr His Leu Trp Ile Thr Thr <210> 660 <211> 185 <212> PRT <213> Homo sapiens <400> 660 Gln Ala Glu Ala Glu His Arg His Arg Pro Asp Arg Arg Ala Cys Cys 10 His Leu Pro Gly Arg Ala Val Thr Gly Met Asp Pro Val Ala Arg Arg 25 Leu Leu Trp Asp Thr Val Ala Arg Ala Arg Glu Ser Gly Lys Ala Ile 35 40 45 Ile Ile Thr Ser His Ser Met Glu Glu Cys Glu Ala Leu Cys Thr Arg Leu Ala Ile Met Val Gln Gly Gln Phe Lys Cys Leu Gly Ser Pro Gln

His Leu Lys Ser Lys Phe Gly Ser Gly Tyr Ser Leu Arg Ala Lys Val

90

672

Gln Ser Glu Gly Gln Gln Glu Ala Leu Glu Glu Phe Lys Ala Phe Val 100 105 110

Asp Leu Thr Phe Pro Gly Ser Val Leu Glu Asp Glu His Gln Gly Met 115 120 125

Val His Tyr His Leu Pro Gly Arg Asp Leu Ser Trp Ala Lys Val Phe 130 140

Val Ser Gln Ile Ser Leu Glu Gln Val Phe Leu Ser Phe Ala His Leu 165 170 175

Gln Pro Pro Thr Ala Glu Glu Gly Arg 180 185

<210> 661

<211> 390

<212> PRT

<213> Homo sapiens

<400> 661

Gly Arg Ala Pro Lys Glu Ala Glu Gly Ala Glu Asp Arg Gln Pro Ala 1 5 10 15

Ser Arg Arg Gly Ala Gly Thr Thr Ala Ala Met Ala Ala Ser Gly Pro 20 25 30

Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu Val Pro Ser Ala Thr Phe $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Phe Thr Ala Leu Leu Ser Leu Leu Val Ser Gly Pro Arg Leu Phe Leu 50 55 60

Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu Thr Leu Lys Ser Glu Ala 65 70 75 80

Leu Arg Asn Trp Gln Val Tyr Arg Leu Val Thr Tyr Ile Phe Val Tyr 85 90 95

Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala Ile Ile Ile Trp Arg Phe 100 105 110

Ala Gly Asn Phe Glu Arg Thr Val Gly Thr Val Arg His Cys Phe Phe 115 120 125

Thr Val Ile Phe Ala Ile Phe Ser Ala Ile Ile Phe Leu Ser Phe Glu

673

140 130 135 Ala Val Ser Ser Leu Ser Lys Leu Gly Glu Val Glu Asp Ala Arg Gly 150 155 Phe Thr Pro Val Ala Phe Ala Met Leu Gly Val Thr Thr Val Arg Ser 165 170 Arg Met Arg Arg Ala Leu Val Phe Gly Met Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Gly Ala Ser Trp Leu Ile Pro Gln Thr Ser 195 200 Phe Leu Ser Asn Val Cys Gly Leu Ser Ile Gly Leu Ala Tyr Gly Cys 215 Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu Arg Val Ala Leu Lys Leu 230 235 Asp Gln Thr Phe Pro Phe Ser Leu Met Arg Arg Ile Ser Val Phe Lys 245 Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg Ala Ala Gln Ser Arg Lys 265 Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr Gln Ser Cys His Pro His 280 Leu Ser Pro Ser His Pro Val Ser Gln Thr Gln His Ala Ser Gly Gln 295 Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro Gly His Met Pro Thr Leu 310 315 Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn His Phe 325 Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala Gly Thr 345 Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly Thr Val

360

375

Tyr Ser Gly Ala Leu Gly Thr Pro Gly Ala Ala Gly Ser Lys Glu Ser

Ser Arg Val Pro Met Pro 385 390

<210> 662 <211> 248 <212> PRT															
	<213> Homo sapiens <400> 662														
<400)> 66	52													
Glu 1	Leu	Tyr	Cys	Gly 5	Val	Leu	Pro	Arg	Ser 10	Pro	Trp	Phe	Leu	Ser 15	Glu
Arg	Arg	Arg	Gln 20	Met	Ala	Asp	Phe	Asp 25	Thr	Tyr	Asp	Asp	Arg 30	Ala	Tyr
Ser	Ser	Phe 35	Gly	Gly	Gly	Arg	Gly 40	Ser	Arg	Gly	Ser	Ala 45	Gly	Gly	His
Gly	Ser 50	Arg	Ser	Gln	Lys	Glu 55	Leu	Pro	Thr	Glu	Pro 60	Pro	Tyr	Thr	Ala
Tyr 65	Val	Gly	Asn	Leu	Pro 70	Phe	Asn	Thr	Val	Gln 75	Gly	Asp	Ile	Asp	Ala 80
Ile	Phe	Lys	Asp	Leu 85	Ser	Ile	Arg	Ser	Val 90	Arg	Leu	Val	Arg	Asp 95	Lys
Asp	Thr	Asp	Lys 100	Phe	Lys	Gly	Phe	Cys 105	Tyr	Val	Glu	Phe	Asp 110	Glu	Val
Asp	Ser	Leu 115	Lys	Glu	Ala	Leu	Thr 120	Tyr	Asp	Gly	Ala	Leu 125	Leu	Gly	Asp
Arg	Ser 130	Leu	Arg	Val	Asp	Ile 135	Ala	Glu	Gly	Arg	Lys 140	Gln	Asp	Lys	Gly
Gly 145	Phe	Gly	Phe	Arg	Lys 150	Gly	Gly	Pro	Asp	Asp 155	Arg	Gly	Phe	Arg	Asp 160
Asp	Phe	Leu	Gly	Gly 165	Arg	Gly	Gly	Ser	Arg 170	Pro	Gly	Asp	Arg	Arg 175	Thr
Gly	Pro	Pro	Met 180	Gly	Ser	Arg	Phe	Arg 185	Asp	Gly	Pro	Pro	Leu 190	Arg	Gly
Ser	Asn	Met 195	Asp	Phe	Arg	Glu	Pro 200	Thr	Glu	Glu	Glu	Arg 205	Ala	Gln	Arg
Pro	Arg 210	Leu	Gln	Leu	Lys	Pro 215	Arg	Thr	Val	Ala	Thr 220	Pro	Leu	Asn	Gln
Val 225	Ala	Asn	Pro	Asn	Ser 230	Ala	Ile	Phe	Gly	Gly 235	Ala	Arg	Pro	Arg	Glu 240

Glu Val Val Gln Lys Glu Gln Glu 245

<210> 663 <211> 616 <212> PRT <213> Homo sapiens <400> 663 Lys Glu Glu Glu Ile Val Asp Trp Trp Ser Lys Phe Tyr Ala Ser Ser Gly Glu His Glu Lys Cys Gly Gln Tyr Ile Gln Lys Gly Tyr Ser Lys Leu Lys Ile Tyr Asn Cys Glu Leu Glu Asn Val Ala Glu Phe Glu Gly Leu Thr Asp Phe Ser Asp Thr Phe Lys Leu Tyr Arg Gly Lys Ser Asp Glu Asn Glu Asp Pro Ser Val Val Gly Glu Phe Lys Gly Ser Phe Arg 65 70 75 Ile Tyr Pro Leu Pro Asp Asp Pro Ser Val Pro Ala Pro Pro Arg Gln 90 Phe Arg Glu Leu Pro Asp Ser Val Pro Gln Glu Cys Thr Val Arg Ile 105 Tyr Ile Val Arg Gly Leu Glu Leu Gln Pro Gln Asp Asn Asn Gly Leu 115 Cys Asp Pro Tyr Ile Lys Ile Thr Leu Gly Lys Lys Val Ile Glu Asp Arg Asp His Tyr Ile Pro Asn Thr Leu Asn Pro Val Phe Gly Arg Met 145 150 155 Tyr Glu Leu Ser Cys Tyr Leu Pro Gln Glu Lys Asp Leu Lys Ile Ser 165 170 Val Tyr Asp Tyr Asp Thr Phe Thr Arg Asp Glu Lys Val Gly Glu Thr 185

Ile Ile Asp Leu Glu Asn Arg Phe Leu Ser Arg Phe Gly Ser His Cys

205

195 . 200

Gly	11e 210	Pro	Glu	Glu	Tyr	Cys 215	Val	Ser	Gly	Val	Asn 220	Thr	Trp	Arg	Asp
Gln 225	Leu	Arg	Pro	Thr	Gln 230	Leu	Leu	Gln	Asn	Val 235	Ala	Arg	Phe	Lys	Gly 240
Phe	Pro	Gln	Pro	Ile 245	Leu	Ser	Glu	Asp	Gly 250	Ser	Arg	Ile	Arg	Туг 255	Gly
Gly	Arg	Asp	Tyr 260	Ser	Leu	Asp	Glu	Phe 265	Glu	Ala	Asn	Lys	Ile 270	Leu	His
Gln	His	Leu 275	Gly	Ala	Pro	Glu	Glu 280	Arg	Leu	Ala	Leu	His 285	Ile	Leu	Arg
Thr	Gln 290	Gly	Leu	Val	Pro	Glu 295	His	Val	Glu	Thr	Arg 300	Thr	Leu	His	Ser
Thr 305	Phe	Gln	Pro	Asn	Ile 310	Ser	Gln	Gly	Lys	Leu 315	Gln	Met	Trp	Val	Asp 320
Val	Phe	Pro	Lys	Ser 325	Leu	Gly	Pro	Pro	Gly 330	Pro	Pro	Phe	Asn	Ile 335	Thr
Pro	Arg	Lys	Ala 340	Lys	Lys	Tyr	туr	Leu 345	Arg	Val	Ile	Ile	Trp 350	Asn	Thr
Lys	Asp	Val 355	Ile	Leu	Asp	Glu	Lys 360	Ser	Ile	Thr	Gly	Glu 365	Glu	Met	Ser
Asp	Ile 370	Tyr	Val	Lys	Gly	Trp 375	Ile	Pro	Gly	Asn	Glu 380	Glu	Asn	Lys	Gln
Lys 385	Thr	Asp	Val	His	Tyr 390	Arg	Ser	Leu	Asp	Gly 395	Glu	Gly	Asn	Phe	Asn 400
Trp	Arg	Phe	Val	Phe 405	Pro	Phe	Asp	Tyr	Leu 410	Pro	Ala	Glu	Gln	Leu 415	Cys
Ile	Val	Ala	Lys 420	Lys	Glu	His	Phe	Trp 425	Ser	Ile	Asp	Gln	Thr 430	Glu	Phe
Arg	Ile	Pro 435	Pro	Arg	Leu	Ile	Ile 440	Gln	Ile	Trp	Asp	Asn 445	Asp	Lys	Phe
Ser	Leu 450	Asp	Asp	туr	Leu	Gly 455	Phe	Leu	Glu	Leu	Asp 460	Leu	Arg	His	Thr
Ile 465	Ile	Pro	Ala	Lys	Ser 470	Pro	Glu	Lys	Cys	Arg 475	Leu	Asp	Met	Ile	Pro 480

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PCT/US00/05918

Gly Ala Arg Val Met Ala Gly Lys Val Glu Met Thr Leu Glu Ile Leu 515 520 525

Asn Glu Lys Glu Ala Asp Glu Arg Pro Ala Gly Lys Gly Arg Asp Glu 530 540

Pro Asn Met Asn Pro Lys Leu Asp Leu Pro Asn Arg Pro Glu Thr Ser 545 550 560

Phe Leu Trp Phe Thr Asn Pro Cys Lys Thr Met Lys Phe Ile Val Trp 565 570 575

Arg Arg Phe Lys Trp Val Ile Ile Gly Leu Leu Phe Leu Leu Ile Leu 580 585 590

Leu Leu Phe Val Ala Val Leu Leu Tyr Ser Leu Pro Asn Tyr Leu Ser 595 600 605

Met Lys Ile Val Lys Pro Asn Val 610 615

<210> 664

<211> 136

<212> PRT

<213> Homo sapiens

<400> 664

Ala Arg Leu Phe Ser Gly Ala Ser Met Ser Met Ala Asp Arg His Gly
1 5 10 15

Gln Gly Ala Val Phe Thr Ile Gly Leu Met Cys Ser Gln Leu Phe Ser 20 25 30

Cys Trp Phe His Leu Asn Asn Gln Met Leu Val Leu Arg Pro Ser Met 35 40 45

Ile Asp Ile Ile Ile His Phe Asp Pro Ser Cys Pro Ser Leu Ser Leu 50 55 60

Ser Ser Pro Leu Cys Gly Phe Phe Leu Glu Thr Glu Arg Asn Pro Arg 65 70 75 80

Cys Trp His Gln Ala Tyr Ser Val Trp Pro Phe Gly Trp Thr Cys Tyr

678

85 90 95

Leu Lys Pro Ser Ala Gln Asn Ile Leu Glu Ser Pro His Phe Ser Gly
100 105 110

Leu Leu Lys Leu Tyr Leu Cys Ile Ile Ala Arg Val Val His Arg Gln
115 120 125

Arg Arg Ile Arg Leu Phe Ser Phe 130 135

<210> 665

<211> 78

<212> PRT

<213> Homo sapiens

<400> 665

Val Cys Pro His Pro Ala Met Ala Arg Leu Leu Gln Ala Ser Cys Leu 1 5 10 15

Leu Ser Leu Leu Leu Ala Gly Phe Val Ser Gln Ser Arg Gly Gln Glu
20 25 30

Lys Ser Lys Met Asp Cys His Gly Gly Ile Ser Gly Thr Ile Tyr Glu 35 40 45

Tyr Gly Ala Leu Thr Ile Asp Gly Glu Glu Tyr Ile Pro Phe Lys Gln 50 60

Tyr Ala Gly Lys Tyr Val Leu Phe Val Asn Val Ala Ser Tyr 65 70 75

<210> 666

<211> 313

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 666

Ala Ala Met Ser Asn Pro Ser Ala Pro Pro Pro Tyr Glu Asp Arg Asn 1 5 10 15

Pro Leu Tyr Pro Gly Pro Xaa Pro Pro Gly Gly Tyr Gly Gln Pro Ser

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			20					25					30		
Val	Leu	Pro 35	Gly	Gly	туг	Pro	Ala 40	Tyr	Pro	Gly	туr	Pro 45	Gln	Pro	Gly
Tyr	Gly 50	His	Pro	Ala	Gly	Tyr 55	Pro	Gln	Pro	Met	Pro 60	Pro	Thr	His	Pro
Met 65	Pro	Met	Asn	Tyr	Gly 70	Pro	Gly	His	Gly	Туг 75	Asp	Gly	Glu	Glu	Arg 80
Ala	Val	Ser	Asp	Ser 85	Phe	Gly	Pro	Gly	Glu 90	Trp	Asp	Asp	Arg	Lys 95	Val
Arg	His	Thr	Phe 100	Ile	Arg	Lys	Val	Tyr 105	Ser	Ile	Ile	Ser	Val 110	Gln	Leu
Leu	Ile	Thr 115	Val	Ala	Ile	Ile	Ala 120	Ile	Phe	Thr	Phe	Val 125	Glu	Pro	Val
Ser	Ala 130	Phe	Val	Arg	Arg	Asn 135	Val	Ala	Val	Tyr	Туг 140	Val	Ser	Tyr	Ala
Val 145	Phe	Val	Val	Thr	Туг 150	Leu	Ile	Leu	Ala	Cys 155	Суз	Gln	Gly	Pro	Arg 160
Arg	Arg	Phe	Pro	Trp 165	Asn	Ile	Ile	Leu	Leu 170	Thr	Leu	Phe	Thr	Phe 175	Ala
Met	Gly	Phe	Met 180	Thr	Gly	Thr	Ile	Ser 185	Ser	Met	Tyr	Gln	Thr 190	Lys	Ala
Val	Ile	Ile 195	Ala	Met	Ile	Ile	Thr 200	Ala	Val	Val	Ser	Ile 205	Ser	Val	Thr
Ile	Phe 210	Cys	Phe	Gln	Thr	Lys 215	Val	Asp	Phe	Thr	Ser 220	Суѕ	Thr	Gly	Leu
Phe 225	_	Val	Leu	Gly	Ile 230		Leu	Leu		Thr 235	-	Ile	Val	Thr	Ser 240
Ile	Val	Leu	туr	Phe 245	Gln	Tyr	Val	Tyr	Trp 250	Leu	His	Met	Leu	Tyr 255	Ala
Ala	Leu	Gly	Ala 260	Ile	Cys	Phe	Thr	Leu 265	Phe	Leu	Ala	Tyr	Asp 270	Thr	Gln
Leu	Val	Leu 275	Gly	Asn	Arg	Lys	His 280	Thr	Ile	Ser	Pro	Glu 285	Asp	Tyr	Ile
Thr	Gly	Ala	Leu	Gln	Ile	Tyr	Thr	Asp	Ile	Ile	Tyr	Ile	Phe	Thr	Phe

680

290 295 300 Val Leu Gln Leu Met Gly Asp Arg Asn 305 310 <210> 667 <211> 487 <212> PRT <213> Homo sapiens <400> 667 Pro Arg Gly Cys Trp Ser Ser Cys Leu Asp Ala Met Phe Arg Leu Asn Ser Leu Ser Ala Leu Ala Glu Leu Ala Val Gly Ser Arg Trp Tyr His 20 Gly Gly Ser Gln Pro Ile Gln Ile Arg Arg Arg Leu Met Met Val Ala 40 Phe Leu Gly Ala Ser Ala Val Thr Ala Ser Thr Gly Leu Leu Trp Lys 55 60 Arg Ala His Ala Glu Ser Pro Pro Cys Val Asp Asn Leu Lys Ser Asp Ile Gly Asp Lys Gly Lys Asn Lys Asp Glu Gly Asp Val Cys Asn His Glu Lys Lys Thr Ala Asp Leu Ala Pro His Pro Glu Glu Lys Lys 100 105 Lys Arg Ser Gly Phe Arg Asp Arg Lys Val Met Glu Tyr Glu Asn Arg 120 Ile Arg Ala Tyr Ser Thr Pro Asp Lys Ile Phe Arg Tyr Phe Ala Thr 135 Leu Lys Val Ile Ser Glu Pro Gly Glu Ala Glu Val Phe Met Thr Pro Glu Asp Phe Val Arg Ser Ile Thr Pro Asn Glu Lys Gln Pro Glu His Leu Gly Leu Asp Gln Tyr Ile Ile Lys Arg Phe Asp Gly Lys Lys Ile 180

185

Ser Gln Glu Arg Glu Lys Phe Ala Asp Glu Gly Ser Ile Phe Tyr Thr

200

LCu	210	Jiu	Cys	Gry	Dea	215	501	1110	Der	vab	220	110	0	200	-112
Thr 225	Val	Leu	Ser	Thr	Pro 230	Gln	Arg	Asn	Phe	Glu 235	Ile	Ala	Phe	Lys	Met 240
Phe	Asp	Leu	Asn	Gly 245	Asp	Gly	Glu	Val	Asp 250	Met	Glu	Glu	Phe	Glu 255	Gln
Val	Gln	Ser	Ile 260	Ile	Arg	Ser	Gln	Thr 265	Ser	Met	Gly	Met	Arg 270	His	Arg
Asp	Arg	Pro 275	Thr	Thr	Gly	Asn	Thr 280	Leu	Lys	Ser	Gly	Leu 285	Cys	Ser	Ala
Leu	Thr 290	Thr	туг	Phe	Phe	Gly 295	Ala	Asp	Leu	Lys	Gly 300	Lys	Leu	Thr	Ile
Lys 305	Asn	Phe	Leu	Glu	Phe 310	Gln	Arg	Lys	Leu	Gln 315	His	Asp	Val	Leu	Lys 320
Leu	Glu	Phe	Glu	Arg 325	His	Asp	Pro	Val	Asp 330	Gly	Arg	Ile	Thr	Glu 335	Arg
Gln	Phe	Gly	Gly 340	Met	Leu	Leu	Ala	Tyr 345	Ser	Gly	Val	Gln	Ser 350	Lys	Lys
Leu	Thr	Ala 355	Met	Gln	Arg	Gln	Leu 360	Lys	Lys	His	Phe	Lys 365	Glu	Gly	Lys
Gly	Leu 370	Thr	Phe	Gln	Glu	Val 375	Glu	Asn	Phe	Phe	Thr 380	Phe	Leu	Lys	Asn
Ile 385	Asn	Asp	Val	Asp	Thr 390	Ala	Leu	Ser	Phe	Tyr 395	His	Met	Ala	Gly	Ala 400
Ser	Leu	Asp	Lys	Val 405	Thr	Met	Gln	Gln	Val 410	Ala	Arg	Thr	Val	Ala 415	Lys
Val	Glu	Leu	Ser 420	Asp	His	Val	Суз	Asp 425	Val	Val	Phe	Ala	Leu 430	Phe	Asp
Cys	Asp	Gly 435	Asn	Gly	Glu	Leu	Ser 440	Asn	Lys	Glu	Phe	Val 445	Ser	Ile	Met
Lys	Gln 450	Arg	Leu	Met	Arg	Gly 455	Leu	Glu	Lys	Pro	Lys 460	Asp	Met	Gly	Phe
Thr 465	Arg	Leu	Met	Gln	Ala 470	Met	Trp	Lys	Cys	Ala 475	Gln	Glu	Thr	Ala	Trp 480

Asp Phe Ala Leu Pro Lys Gln 485

<210> 668

<211> 106

<212> PRT

<213> Homo sapiens

<400> 668

Gly Gly Val Gly Ala Glu Pro Asp Trp Ser Gly Gln Arg His Ala Gly
1 5 10 15

Ala Val Pro Arg Ala Ser Pro Ala Val Ala Val Ala Val Ala Gly Pro 20 25 30

Trp Gly Glu Asp Gly Phe Leu Arg Gly Arg Gly Val Arg Gln Pro Ala 35 40 45

Ala Gln Pro Leu Ser Ser Pro Gln Asp Asp His Gly Arg Ala Ala Arg
50 55 60

His Leu Arg Gln His Ala Gly Arg Val Ala Leu Leu Ala Cys Arg Ser 65 70 75 80

Leu Ser Leu Arg Gly Arg Gln Gln Ser Gln Glu Ala Gly Met Lys Val 85 90 95

Ala Leu Ser Pro Pro Gln Gly Ser Arg Thr

<210> 669

<211> 105

<212> PRT

<213> Homo sapiens

<400> 669

Phe Gly Thr Ser Arg Arg Glu Thr Ser Val Val Pro Cys Arg Val Ala
1 5 10 15

Ser Val Leu Arg Arg Pro Ser Pro Ser Phe Ala Ile Ala Arg His Arg

Thr Pro Ser Leu Glu Ile Cys Arg His Leu Asp Phe Ser His Ala Val 35 40 45

Cys Gln Val Ser Ala Ala Thr Arg Arg Gln Gly Ala Gly Pro Cys Gly

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683

55 60 50 Leu Cys Cys Thr Ser Asp Gly Phe Ala Pro Ala Ser Ala Leu Ser Leu 70 75 Leu Gln His Ser Asp Leu His Pro Leu Arg Gly Phe His Cys Pro Arg Gly Glu Asn Ala Pro Gly Ser Val Thr 100 <210> 670 <211> 285 <212> PRT <213> Homo sapiens <400> 670 Thr Gly Trp Ser His Arg Gly Lys Lys Met Ser Pro Arg Thr Pro Gly Phe Thr Pro Ser Pro Gln Arg Cys Leu His His Arg Cys Ser Thr Pro Ala Ala Ala Ala Ser Ala Glu Cys Gly Pro Ser Gly Ala Thr Leu Ile Arg Ile Pro Leu His Arg Val Gln Pro Gly Arg Arg Ile Leu Asn Leu Leu Arg Gly Trp Arg Glu Pro Ala Glu Leu Pro Lys Leu Gly Ala 70 Pro Ser Pro Glu Asp Lys Pro Ile Phe Val Pro Leu Ser Asn Tyr Lys Gly Trp Leu His His Arg Phe Asp Pro Lys Ala Ser Thr Pro Ser Ser Gln Trp Asp Gln Phe Ala Ile Gln Tyr Gly Thr Gly Arg Val His Gly 120 Ile Leu Ser Glu Asp Lys Leu Thr Ile Gly Gly Ile Lys Gly Ala Ser 135 Val Ile Phe Gly Glu Ala Leu Trp Glu Pro Ser Leu Val Phe Ala Phe 145 150 155

Ala His Phe Asp Gly Ile Leu Gly Leu Gly Phe Pro Ile Leu Ser Val

Glu Gly Val Arg Pro Pro Met Asp Val Leu Val Glu Gln Gly Leu Leu 180 185 Asp Lys Pro Val Phe Ser Phe Tyr Leu Asn Arg Asp Pro Glu Glu Pro 200 Asp Gly Glu Leu Val Leu Gly Gly Ser Asp Pro Ala His Tyr Ile Pro Pro Leu Thr Phe Val Pro Val Thr Val Pro Ala Tyr Trp Gln Ile 230 235 His Met Glu Arg Val Lys Val Gly Pro Gly Leu Thr Leu Cys Ala Lys 250 Gly Cys Ala Ala Ile Leu Asp Thr Gly Thr Ser Leu Ile Thr Gly Pro 260 265 Thr Glu Glu Ile Arg Ala Leu His Ala Ala Ile Gly Gly 275 280 <210> 671 <211> 157 <212> PRT <213> Homo sapiens <400> 671 Tyr Glu Glu Gln Ala Phe Gln Asp Leu Ser Gly Gly Asp Pro Pro Gly 10 Gly Ser Thr Ser His Leu Met Trp Lys Arg Met Lys Asn Leu Arg Gly Gly Ser Cys Pro Leu Met Pro Asp Lys Pro Leu Ser Ala Asn Val Pro Asn Asp Lys Phe Thr Gln Asn Pro Met Arg Gly Leu Gly His Pro Leu 50 55 Arg His Leu Pro Leu Pro Gln Pro Pro Ser Ala Ile Ser Pro Gly Glu 70 Asn Ser Lys Ser Arg Phe Pro Pro Gln Cys Tyr Ala Thr Gln Tyr Gln 90

Asp Tyr Ser Leu Ser Ser Ala His Lys Val Ser Gly Met Ala Ser Arg 100 105 110

685

Leu Leu Gly Pro Ser Phe Glu Ser Tyr Leu Leu Pro Glu Leu Thr Arg

Tyr Asp Cys Glu Val Asn Val Pro Val Leu Gly Ser Ser Thr Leu Leu 130 135 140

Gln Gly Gly Asp Leu Leu Arg Ala Leu Asp Gln Ala Thr 145 150 155

<210> 672

<211> 307

<212> PRT

<213> Homo sapiens

<400> 672

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Asn Gly Gly Arg Arg Leu Gly Gly Arg Ala Gly Gly Ser His Gly 20 25 30

Gly Gly Asp Thr Gly Gly Ser Gly Gly Gly Lys Arg Ser Arg Asp 35 40 45

Arg Gly Arg Asn Arg Val Trp Arg His Arg Arg Gly Ser Ala Glu Ser 50 60

Glu Gly Ala Lys Ile Asp Ala Ser Lys Asn Glu Glu Asp Glu Gly His
65 70 75 80

Ser Asn Ser Ser Pro Arg His Ser Glu Ala Ala Thr Ala Gln Arg Glu 85 90 95

Glu Trp Lys Met Phe Ile Gly Gly Leu Ser Trp Asp Thr Thr Lys Lys
100 105 110

Asp Leu Lys Asp Tyr Phe Ser Lys Phe Gly Glu Val Val Asp Cys Thr 115 120 125

Leu Lys Leu Asp Pro Ile Thr Gly Arg Ser Arg Gly Phe Gly Phe Val 130 135 140

Leu Phe Lys Glu Ser Glu Ser Val Asp Lys Val Met Asp Gln Lys Glu 145 150 155 160

His Lys Leu Asn Gly Lys Val Ile Asp Pro Lys Arg Ala Lys Ala Met

165 170 175

Lys Thr Lys Glu Pro Val Lys Lys Ile Phe Val Gly Gly Leu Ser Pro

180 · 185 190 Asp Thr Pro Glu Glu Lys Ile Arg Glu Tyr Phe Gly Gly Phe Gly Glu 200 Val Glu Ser Ile Glu Leu Pro Met Asp Asn Lys Thr Asn Lys Arg Arg Gly Phe Cys Phe Ile Thr Phe Lys Glu Glu Glu Pro Val Lys Lys Ile 230 Met Glu Lys Lys Tyr His Asn Val Gly Leu Ser Lys Cys Glu Ile Lys 245 250 Val Ala Met Ser Lys Glu Gln Tyr Gln Gln Gln Gln Trp Gly Ser 265 Arg Gly Gly Phe Ala Gly Arg Ala Arg Gly Arg Gly Asp Gln Gln 280 Ser Gly Tyr Gly Lys Val Ser Arg Arg Gly Gly His Gln Asn Ser Tyr 295 Lys Pro Tyr 305 <210> 673 <211> 248 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <400> 673 Pro Leu Arg Xaa Val Leu Val Glu Ser Ile Pro Glu Gly Leu Asp Phe 5 10 Pro Asn Ala Ser Thr Gly Asn Pro Ser Thr Ser Gln Ala Trp Leu Gly Leu Leu Ala Gly Ala His Ser Ser Leu Asp Ile Ala Ser Phe Tyr Trp 40 Thr Leu Thr Asn Asn Asp Thr His Thr Gln Glu Pro Ser Ala Gln Gln

55

60

Gly Glu Glu Val Leu Arg Gln Leu Gln Thr Leu Ala Pro Lys Gly Val 70 Asn Val Arg Ile Ala Val Ser Lys Pro Ser Gly Pro Gln Pro Gln Ala 90 Asp Leu Gln Ala Leu Leu Gln Ser Gly Ala Gln Val Arg Met Val Asp 105 Met Gln Lys Leu Thr His Gly Val Leu His Thr Lys Phe Trp Val Val Asp Gln Thr His Phe Tyr Leu Gly Ser Ala Asn Met Asp Trp Arg Ser Leu Thr Gln Val Lys Glu Leu Gly Val Val Met Tyr Asn Cys Ser Cys 150 155 Leu Ala Arg Asp Leu Thr Lys Ile Phe Glu Ala Tyr Trp Phe Leu Gly 165 170 Gln Ala Gly Ser Ser Ile Pro Ser Thr Trp Pro Arg Phe Tyr Asp Thr 185 Arg Tyr Asn Gln Glu Thr Pro Met Glu Ile Cys Leu Asn Gly Thr Pro 200 Ala Leu Ala Tyr Leu Ala Ser Ala Pro Pro Pro Leu Cys Pro Ser Gly Arg Thr Pro Asp Leu Lys Ala Leu Leu Asn Val Val Gly Gln Cys Pro 230 Glu Phe His Leu Arg Arg Cys Ser 245 <210> 674 <211> 303 <212> PRT <213> Homo sapiens <220> <221> SITE

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	,- L> s:	ריייבי													
	2> (:														
	•	,	quals	ans	, of	the	nati	ırali	ש מו	curi	rina	L-an	nino	acid	is
			1441	, u					-, 0.						
)> 6														
Ala	Leu	Asp	Phe	Gly	Asp	Ser	Cys	Gln	Trp	Pro	Arg	Pro	Gln	Asp	Thr
1				5					10					15	
Wa+	T	Cl.	T 011	Dro	1101	T 011	C1	Dwa	C1	3.55	T	Bro	7.50	Tvc	פות
met	гуѕ	GIn	Leu	PIO	val	Leu	GIU		GIY	Asp	гуу	PIO		гÃг	ALA
			20					25					30		
Thr	Trp	Tyr	Thr	Leu	Thr	Val	Pro	Gly	Asp	Ser	Pro	Cys	Ala	Arg	Val
	-	35					40	•	-			45		-	
Gly	His	Ser	Cys	Ser	Tyr	Leu	Pro	Pro	Val	Gly	Asn	Ala	Lys	Arg	Gly
	50					55					60				
_	Val	Phe	Ile	Val	-	Gly	Ala	Asn	Pro		Arg	Ser	Phe	Ser	
65					70					75					80
17- 1		mh w)(a+	7	T	C1	T	V	~1 n	m~~	200	T 011	200	mb =	Cva
val	uis	THE	Met	85	Leu	GIY	гуѕ	Add	90	пр	Asp	Leu	ASP	95	Cys
				0,5					30					,,	
Lvs	Glv	Leu	Leu	Pro	Ara	Tvr	Glu	His	Ala	Ser	Phe	Ile	Pro	Ser	Cvs
-1-	2		100		5	-1-		105					110		-1-
Thr	Pro	Asp	Arg	Ile	Trp	Val	Phe	Gly	Gly	Ala	Asn	Gln	Ser	Gly	Asn
		115					120					125			
Arg	Asn	Cys	Leu	Gln	Val	Leu	Asn	Pro	Glu	Thr	Arg	Thr	Trp	Thr	Xaa
	130					135					140				
_				_	_	_		_	_						_
	Glu	Val	Thr	Ser		Pro	Pro	Ser	Pro	_	Thr	Phe	His	Thr	
145					150					155					160
Ser	- ו מ	ב 1 ב	Ile	Gl··	1	Gl n	T e ::	m~	17a l	Dhe	G1	Cl w	G1 ++	Gl.:	Ar~
JGI	nia	vra	116	165	USII	GTII	пeu	1 7 1	170	I 11G	G T Å	GTÅ	GLY	175	ALY

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Gly Ala Gln Pro Val Gln Asp Thr Lys Leu His Val Phe Asp Ala Asn

Thr Leu Thr Trp Ser Gln Pro Glu Thr Leu Gly Asn Pro Pro Ser Pro 195 200 205

Arg His Gly His Val Met Val Ala Ala Gly Thr Lys Leu Phe Ile His 210 220

Gly Gly Leu Ala Gly Asp Arg Phe Tyr Asp Asp Leu His Cys Ile Asp 225 230 235 240

Ile Ser Gly His Glu Met Ala Gly Ser Leu Asn Pro Thr Gly Gly Leu 245 250 255

Leu Pro Ala Gly Cys Ala Ala His Ser Ala Val Ala Met Gly Lys His 260 265 270

Val Tyr Ile Phe Gly Gly Ile Asp Ser Cys Arg Ala Leu Asp Thr Cys 275 280 285

Tyr Xaa Xaa His Thr Glu Glu Gln His Trp Thr Leu Leu Xaa Ile 290 295 300

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<212> PRT

<213> Homo sapiens

<400> 675

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Ile Cys Ser Asn Ala Gly Thr Cys His Cys Gly Arg Cys Lys Cys Asp 20 25 30

Asn Ser Asp Gly Ser Gly Leu Val Tyr Gly Lys Phe Cys Glu Cys Asp 35 40 45

Asp Arg Glu Cys Ile Asp Asp Glu Thr Glu Glu Ile Cys Gly Gly His
50 55 60

Gly Lys Cys Tyr Cys Gly Asn Cys Tyr Cys Lys Ala Gly Trp His Gly
65 70 75 80

Asp Lys Cys Glu Phe Gln Cys Asp Ile Thr Pro Trp Glu Ser Lys Arg

Arg Cys Thr Ser Pro Asp Gly Lys Ile Cys Ser Asn Arg Gly Thr Cys

			100					105					110		
Val	Cys	Gly 115	Glu	Cys	Thr	Cys	His 120	Asp	Val	Asp	Pro	Thr 125	Gly	Asp	Trp
Gly	Asp 130	Ile	His	Gly	Asp	Thr 135	Cys	Glu	Cys	Asp	Glu 140	Arg	Asp	Cys	Arg
Ala 145	Val	Tyr	Asp	Arg	Туг 150	Ser	Asp	Asp	Phe	Cys 155	Ser	Gly	His	Gly	Gln 160
Cys	Asn	Cys	Gly	Arg 165	Cys	Asp	Cys	Lys	Ala 170	Gly	Trp	Tyr	Gly	Lys 175	Lys
Cys	Glu	His	Pro 180	Gln	Ser	Cys	Thr	Leu 185	Ser	Ala	Glu	Glu	Ser 190	Ile	Arg
Lys	Cys	Gln 195	Gly	Ser	Ser	Asp	Leu 200	Pro	Cys	Ser	Gly	Arg 205	Gly	Lys	Cys
Glu	Cys 210	Gly	Lys	Cys	Thr	Cys 215	туг	Pro	Pro	Gly	Asp 220	Arg	Arg	Val	Tyr
Gly 225	Lys	Thr	Суз	Glu	Cys 230	Asp	Asp	Arg	Arg	Cys 235	Glu	Asp	Leu	Asp	Gly 240
Val	Val	Cys	Gly	Gly 245	His	Gly	Thr	Суз	Ser 250	Cys	Gly	Arg	Cys	Val 255	Cys
Glu	Arg	Gly	Trp 260	Phe	Gly	Lys	Leu	Cys 265	Gln	His	Pro	Arg	Lys 270	Cys	Asn
Met	Thr	Glu 275	Glu	Gln	Ser	Lys	Asn 280	Leu	Cys	Glu	Ser	Ala 285	Asp	Gly	Ile
Leu	Cys 290	Ser	Gly	Lys	Gly	Ser 295	Cys	His	Cys	Gly	Lys 300	Cys	Ile	Cys	Ser
Ala 305	Glu	Glu	Trp	Tyr	Ile 310	Ser	Gly	Glu	Phe	Cys 315	Asp	Cys	Asp	Asp	Arg 320
Asp	Cys	Asp	Lys	His 325	Asp	Gly	Leu	Ile	Cys 330	Thr	Gly	Asn	Gly	Ile 335	Cys
Ser	Cys	Gly	Asn 340	Cys	Glu	Cys	Trp	Asp 345	Gly	Trp	Aśn	Gly	Asn 350	Ala	Cys
Glu	Ile	Trp 355	Leu	Gly	Ser	Glu	туг 360	Pro							

691

<210> 676 <211> 154

<212> PRT

<213> Homo sapiens

<400> 676

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Ala Pro Cys Phe Lys Lys Thr Arg Leu Thr Leu Val Cys Glu Ser Ala
20 25 30

Pro Gly Pro Ile Thr Met Asp Leu Thr Gly Asp Leu Glu Ala Leu Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Lys Glu Thr Ile Val Leu Lys Glu Gly Ser Glu Tyr Arg Val Lys Ile 50 55 60

His Phe Lys Val Asn Arg Asp Ile Val Ser Gly Leu Lys Tyr Val Gln 65 70 75 80

His Thr Tyr Arg Thr Gly Val Lys Val Asp Lys Ala Thr Phe Met Val 85 90 95

Gly Ser Tyr Gly Pro Arg Pro Glu Glu Tyr Glu Phe Leu Thr Pro Val 100 105 110

Glu Glu Ala Pro Lys Gly Met Leu Ala Arg Gly Thr Tyr His Asn Lys 115 120 125

Ser Phe Phe Thr Asp Asp Asp Lys Gln Asp His Leu Ser Trp Glu Trp 130 135 140

Asn Leu Ser Ile Lys Lys Glu Trp Thr Glu 145 150

<210> 677

<211> 270

<212> PRT

<213> Homo sapiens

<400> 677

Glu Glu Ala Ala Thr Pro Ser Gly Gly Gly Arg Asn Arg Ser Ala Ser 1 5 10 15

Ser Ser Trp Val Gly Thr Met Ala Gly Ile Thr Thr Ile Glu Ala Val 20 25 30

гÀг	Arg	35	ше	GIN	vaı	rea	40	GIN	GIn	Ala	Asp	45	Ala	GIU	Giu
Arg	Ala 50	Glu	Arg	Leu	Gln	Arg 55	Glu	Val	Glu	Gly	Glu 60	Arg	Arg	Ala	Arg
Glu 65	Gln	Ala	Glu	Ala	Glu 70	Val	Ala	Ser	Leu	Asn 75	Arg	Arg	Ile	Gln	Leu 80
Val	Glu	Glu	Glu	Leu 85	Asp	Arg	Ala	Gln	Glu 90	Arg	Leu	Ala	Thr	Ala 95	Leu
Gln	Lys	Leu	Glu 100	Glu	Ala	Glu	Lys	Ala 105	Ala	Asp	Glu	Ser	Glu 110	Arg	Gly
Met	Lys	Val 115	Ile	Glu	Asn	Arg	Ala 120	Leu	Lys	Asp	Glu	Glu 125	Lys	Met	Glu
Leu	Gln 130	Glu	Ile	Gln	Leu	Lys 135	Glu	Ala	Lys	His	Ile 140	Ala	Glu	Glu	Ala
Asp 145	Arg	Lys	Tyr	Glu	Glu 150	Val	Ala	Arg	Lys	Leu 155	Val	Ile	Ile	Glu	Gly 160
Asp	Leu	Glu	Arg	Thr 165	Glu	Glu	Arg	Ala	Glu 170	Leu	Ala	Glu	Ser	Arg 175	Cys
Arg	Glu	Met	Asp 180	Glu	Gln	Ile	Arg	Leu 185	Met	Asp	Gln	Asn	Leu 190	Lys	Cys
Leu	Ser	Ala 195	Ala	Glu	Glu	Lys	Tyr 200	Ser	Gln	Lys	Glu	Asp 205	Lys	Tyr	Glu
Glu	Glu 210	Ile	Lys	Ile	Leu	Thr 215	Asp	Lys	Leu	Lys	Glu 220	Ala	Glu	Thr	Arg
225			Ala		230				_	235		_			240
Asp	Leu	Glu	Asp	Lys 245	Leu	Lys	Cys	Thr	Lys 250	Glu	Glu	His	Leu	Cys 255	Thr

Gln Arg Met Leu Asp Gln Thr Leu Leu Asp Leu Asn Glu Met

265

270

<210> 678

<211> 712

<212> PRT

<213> Homo sapiens

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<400> 678
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                                     10
                                                          15
Asp Trp Thr Thr Xaa Ser Leu Arg Ala Leu Ala Ala Xaa Ala Pro Ala
Leu Glu Arg Glu Ser Glu Gly Thr Thr Gly Val Leu Xaa Trp Val Leu
                             40
Thr Pro Ala Leu Leu His Glu Arg Leu Ser Ser Gly Cys Val Gln Gly
     50
                         55
                                             60
Ile Thr Glu Leu Phe Cys Pro Asn Pro Glu Ala Tyr Gln Gly Leu Pro
                     70
                                         75
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Thr Leu Pro Pro Ser Thr Leu Ser Val Ala Ala Ala Ala Met Ala

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				85					90					95	
Gly	Met	Lys	Thr 100	Ala	Ser	Gly	Asp	туг 105	Ile	Asp	Ser	Ser	Trp 110	Glu	Leu
Arg	Val	Phe 115	Val	Gly	Glu	Glu	Asp 120	Pro	Glu	Ala	Glu	Ser 125	Val	Thr	Leu
Arg	Val 130	Thr	Gly	Glu	Ser	His 135	Ile	Gly	Gly	Val	Leu 140	Leu	Lys	Ile	Val
Glu 145	Gln	Ile	Asn	Arg	Lys 150	Gln	Asp	Trp	Ser	Asp 155	His	Ala	Ile	Trp	Trp 160
Glu	Gln	Lys	Arg	Gln 165	Trp	Leu	Leu	Gln	Thr 170	His	Trp	Thr	Leu	Asp 175	Lys
Tyr	Gly	Ile	Leu 180	Ala	Asp	Ala	Arg	Leu 185	Phe	Phe	Gly	Pro	Gln 190	His	Arg
Pro	Val	Ile 195	Leu	Arg	Leu	Pro	Asn 200	Arg	Arg	Ala	Leu	Arg 205	Leu	Arg	Ala
Ser	Phe 210	Ser	Gln	Pro	Leu	Phe 215	Gln	Ala	Val	Ala	Ala 220	Ile	Cys	Arg	Leu
Leu 225	Ser	Ile	Arg	His	Pro 230	Glu	Glu	Leu	Ser	Leu 235	Leu	Arg	Ala	Pro	Glu 240
Lys	Lys	Glu	Lys	Lys 245	Lys	Lys	Glu	Lys	Glu 250	Pro	Glu	Glu	Glu	Leu 255	Tyr
Asp	Leu	Ser	Lys 260	Val	Val	Leu	Ala	Gly 265	Gly	Val	Ala	Pro	Ala 270	Leu	Phe
Arg	Gly	Met 275	Pro	Ala	His	Phe	Ser 280	Asp	Ser	Ala	Gln	Thr 285	Glu	Ala	Cys
Tyr	His 290	Met	Leu	Ser	Arg	Pro 295	Gln	Pro	Pro	Pro	Asp 300	Pro	Leu	Leu	Leu
Gln 305	Arg	Leu	Pro	Arg	Pro 310	Ser	Ser	Leu	Ser	Asp 315	Lys	Thr	Gln	Leu	His 320
Ser	Arg	Trp	Leu	Asp 325	ser	Ser	Arg	Cys	Leu 330	Met	Gln	Gln	Gly	11e 335	Lys
Ala	Gly	Asp	Ala 340	Leu	Trp	Leu	Arg	Phe 345	Lys	Tyr	Tyr	Ser	Phe 350	Phe	Asp

Leu Asp Pro Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln

		355					360					365			
Ala	Arg 370	Trp	Asp	Leu	Leu	Leu 375	Glu	Glu	Ile	Asp	Cys 380	Thr	Glu	Glu	Glu
Met 385	Met	Val	Phe	Xaa	Ala 390	Leu	Gln	Asp	Xaa	Leu 395	Thr	Thr	Ile	Pro	G1:
Leu	Lys	Asp	His	Leu 405	Arg	Ile	Phe	Arg	Pro 410	Arg	Lys	Leu	Thr	Leu 415	Lys
Gly	Tyr	Arg	Gln 420	His	Trp	Val	Val	Phe 425	Lys	Glu	Thr	Thr	Leu 430	Ser	Туі
Tyr	Lys	Ser 435	Gln	Asp	Glu	Ala	Pro 440	Gly	Asp	Pro	Ile	Gln 445	Gln	Leu	Ası
Leu	Lys 450	Gly	Cys	Glu	Val	Val 455	Pro	Asp	Val	Asn	Val 460	Ser	Gly	Gln	Lys
Phe 465	Cys	Ile	Lys	Leu	Leu 470	Val	Pro	Ser	Pro	Glu 475	Gly	Met	Ser	Glu	11e 480
Туг	Leu	Arg	Cys	Gln 485	Asp	Glu	Gln	Gln	Tyr 490	Ala	Arg	Trp	Met	Ala 495	Gly
Cys	Arg	Leu	Ala 500	Ser	Lys	Gly	Arg	Thr 505	Met	Ala	Asp	Ser	Ser 510	Tyr	Thi
Ser	Glu	Val 515	Gln	Ala	Ile	Leu	Ala 520	Phe	Leu	Ser	Leu	Gln 525	Arg	Thr	Gl
Ser	Gly 530	Gly	Pro	Gly	Asn	His 535	Pro	His	Gly	Pro	Asp 540	Ala	Ser	Ala	Glu
Gly 545	Leu	Asn	Pro	Tyr	Gly 550	Leu	Val	Ala	Pro	Arg 555	Phe	Gln	Arg	Lys	Phe 560
Lys	Ala	Lys	Gln	Leu 565	Thr	Pro	Arg	Ile	Leu 570	Glu	Ala	His	Gln	Asn 575	Va]
Ala	Gln	Leu	Ser 580	Leu	Ala	Glu	Ala	Gln 585	Leu	Arg	Phe	Ile	Gln 590	Ala	Tr
Gln	Ser	Leu 595	Pro	Asp	Phe	Gly	Ile 600	Ser	Tyr	Val	Met	Val 605	Arg	Phe	Lys
Gly	Ser	Arg	Lys	Asp	Glu	Ile	Leu	Gly	Ile	Ala	Asn	Asn	Arg	Leu	Ile

Arg Ile Asp Leu Ala Val Gly Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val Asn Trp Asp Ile Arg Gln Val Ala Ile 645 650 Glu Phe Asp Glu His Ile Asn Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr Ile Gly Gly Tyr Ile Phe Leu Ser Thr 680 Arg Glu Arg Ala Arg Gly Glu Glu Leu Asp Glu Asp Leu Phe Leu Gln 695 Leu Thr Gly Gly His Glu Ala Phe <210> 679 <211> 179 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (179) <223> Xaa equals any of the naturally occurring L-amino acids <400> 679 Thr Val Lys Val Trp Ala Thr His Arg Gln Lys Phe Leu Phe Ser Leu 10 Ser Gln His Ile Asn Trp Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys Val His Ser Tyr Cys Glu His Gly Gly Phe 55 Val Thr Tyr Val Asp Phe His Pro Ser Gly Thr Cys Ile Ala Ala Ala

Gly Met Asp Asn Thr Val Lys Val Trp Asp Val Arg Thr His Arg Leu

Leu Gln His Tyr Gln Leu His Ser Ala Ala Val Asn Gly Leu Ser Phe

100 105 110 His Pro Ser Gly Asn Tyr Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu 120 Lys Ile Leu Asp Leu Met Glu Gly Pro Ala Ala Leu His Thr Pro Arg 135 Gly Ile Arg Asp Gln Pro His Trp Pro Ser Ser Met Gly Asn Leu Pro 150 155 Glu Val Asp Phe Pro Val Pro Pro Arg Gln Lys Gln Gly Val Leu Glu 170 165 Ser Val Xaa <210> 680 <211> 271 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (11) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE .<222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

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	-	-	quals	s any	of	the	nati	ırall	Ly o	ccur	ring	L-ar	nino	acio	is
<400)> 68	30													
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Xaa	Pro	Ala	Leu 20	Cys	Ser	Cys	Gly	Leu 25	Ile	Arg	Xaa	Xaa	Pro 30	Ala	Arg
His	Pro	Arg 35	Pro	Ala	Met	Ala	Ile 40	Tyr	Lys	Gln	Ser	Gln 45	His	Met	Thr
Glu	Val 50	Val	Arg	Arg	Cys	Pro 55	His	His	Glu	Arg	Cys 60	Ser	Asp	Ser	Asp
Gly 65	Leu	Ala	Pro	Pro	Gln 70	His	Leu	Ile	Arg	Val 75	Glu	Gly	Asn	Leu	Arg 80
Val	Glu	Туг	Leu	Asp 85	Asp	Arg	Asn	Thr	Phe 90	Arg	His	Ser	Val	Val 95	Val
Pro	Tyr	Glu	Pro 100	Pro	Glu	Val	Gly	Ser 105	Asp	Cys	Thr	Thr	Ile 110	His	Tyr
Asn	Tyr	Met 115	Cys	Asn	Ser	Ser	Cys 120	Met	Gly	Gly	Met	Asn 125	Arg	Arg	Pro
Ile	Leu 130	Thr	Ile	Ile	Thr	Leu 135	Glu	Asp	Ser	Ser	Gly 140	Asn	Leu	Leu	Gly
Arg 145	Asn	Ser	Phe	Glu	Val 150	Arg	Val	Суз	Ala	Cys 155	Pro	Gly	Arg	Asp	Arç
Arg	Thr	Glu	Glu	Glu 165	Asn	Leu	Arg	Lys	Lys 170	Gly	Glu	Pro	His	His 175	Glu
Leu	Pro	Pro	Gly 180	Ser	Thr	Lys	Arg	Ala 185	Leu	Pro	Asn	Asn	Thr 190	Ser	Ser
Ser	Pro	Gln 195	Pro	Lys	Lys	Lys	Pro 200	Leu	Asp	Gly	Glu	Tyr 205	Phe	Thr	Leu
Gln	Ile	Arg	Gly	Arg		Arg		Glu	Met	Phe	Arg	Glu	Leu	Asn	Glu

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Ala Leu Glu Leu Lys Asp Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser
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Arg Ala His Ser Ser His Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser 245 250 255

Arg His Lys Leu Met Phe Lys Thr Glu Gly Pro Asp Ser Asp
260 265 270

<210> 681

WO 00/55180

<211> 39

<212> PRT

<213> Homo sapiens

<400> 681

Gly Gln Val Arg Cys Leu Thr Ser Val Ile Pro Thr Leu Trp Glu Ala 1 5 10 15

Glu Met Gly Gly Leu Leu Glu Pro Arg Ser Ser Arg Pro Ala Trp Ala 20 25 30

Thr Gln Arg Asp Pro Ile Ser 35

<210> 682

<211> 84

<212> PRT

<213> Homo sapiens

<400> 682

Pro Pro Phe Tyr Leu Arg Ser Ile Phe Ile His Cys Ile Gly Asn Cys
1 10 15

Phe Met Leu Gln Ser Ala Lys Ser Arg Ala Phe Ile Arg Pro Cys
20 25 30

His Thr Gln Glu Ser Thr Tyr Leu Lys Lys Lys Gln Phe Pro Glu Leu 35 40 45

Ser Thr Pro Ser Cys Arg Phe Gly Val Phe Leu Val Leu Thr Leu Lys 50 55 60

Ser His Val Leu Ile Phe Phe Leu Pro Val Phe Val Cys Lys Met Ser 65 70 75 80

Ser Ile Cys Tyr

700

<211> 59 <212> PRT <213> Homo sapiens <400> 683 Ala Phe Val Val Phe Ser Phe Asn Thr Cys Thr Ser Leu Leu Phe Glu 10 Lys Cys Tyr Ser Cys Gln Arg Ile Phe Met Asp Leu Lys Ile Ile Ser Cys Glu Val Glu Cys Lys Cys Thr Val Ile His Ser Val Tyr Ile Lys 40 Ile Pro Gly Ile Phe Thr Phe Ala Thr Leu Ile 50 55 <210> 684 <211> 301 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (265) <223> Xaa equals any of the naturally occurring L-amino acids <400> 684 Arg Asn Ser Arg Val Asp Pro Arg Val Arg Gly Ser Gln Gln Leu Pro 10 Leu Leu Cys Pro Ala Pro Gly Thr Arg Leu Phe Pro Leu Gln Cys Leu 20 Arg Gly Gly Asp Gly Ser Thr Met Asp Pro Arg Leu Ser Thr Val Arg Gln Thr Cys Cys Cys Phe Asn Val Arg Ile Ala Thr Thr Ala Leu Ala 55

Ile Tyr His Val Ile Met Ser Val Leu Leu Phe Ile Glu His Ser Val

Glu Val Ala His Gly Lys Ala Ser Cys Lys Leu Ser Gln Met Gly Tyr

90

85

<210> 683

701

Leu Arg Ile Ala Asp Leu Ile Ser Ser Phe Leu Leu Ile Thr Met Leu 100 105 110

Phe Ile Ile Ser Leu Ser Leu Leu Ile Gly Val Val Lys Asn Arg Glu 115 120 125

Lys Tyr Leu Leu Pro Phe Leu Ser Leu Gln Ile Met Asp Tyr Leu Leu 130 135 140

Cys Leu Leu Thr Leu Leu Gly Ser Tyr Ile Glu Leu Pro Ala Tyr Leu 145 150 155 160

Lys Leu Ala Ser Arg Ser Arg Ala Ser Ser Ser Lys Phe Pro Leu Met
165 170 175

Thr Leu Gln Leu Leu Asp Phe Cys Leu Ser Ile Leu Thr Leu Cys Ser 180 185 190

Ser Tyr Met Glu Val Pro Thr Tyr Leu Asn Phe Lys Ser Met Asn His 195 200 205

Met Asn Tyr Leu Pro Ser Gln Glu Asp Met Pro His Asn Gln Phe Ile 210 215 220

Lys Met Met Ile Ile Phe Ser Ile Ala Phe Ile Thr Val Leu Ile Phe 225 230 235 240

Lys Val Tyr Met Phe Lys Cys Val Trp Arg Cys Tyr Arg Leu Ile Lys 245 250 255

Cys Met Asn Ser Val Glu Glu Lys Xaa Asn Ser Lys Met Leu Gln Lys 260 265 270

Val Val Leu Pro Ser Tyr Glu Glu Ala Leu Ser Leu Pro Ser Lys Thr 275 280 285

Pro Glu Gly Gly Pro Ala Pro Pro Pro Tyr Ser Glu Val 290 295 300

<210> 685

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (94) <223> Xaa equals any of the naturally occurring L-amino acids Glu Gln Cys Trp Trp Gly Gln Ser Leu Gln Arg Leu Gly Trp Gln Pro 5 10 Thr Asn Thr Ser Gly Thr Thr Arg Arg Cys Ala Gly Pro Ser Asn Ser 25 Met Gln Leu Ala Ser Arg Ser Ala Gly Glu Leu Val Glu Ser Leu Lys 40 Leu Met Ser Leu Cys Leu Gly Ser Gln Leu His Gly Ser Thr Lys Tyr 55 Ile Ile Asp Pro Gln Asn Gly Leu Ser Phe Ser Ser Val Lys Val Gln Glu Lys Xaa Thr Trp Lys Met Cys Ile Ser Ser Thr Gly Xaa Ala Gly 85 Gln Val Pro Gln Trp Ala Ala 100 <210> 686 <211> 245 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (145) <223> Xaa equals any of the naturally occurring L-amino acids <400> 686 Ala Arg Ala Trp Lys His Ile Asp Tyr Phe Asn Asn Gln Ile Ile Val 5 Asp Leu Val Glu Gln Gln His Lys Gly Ile Ile Ala Ile Leu Asp Asp 20 Ala Cys Met Asn Val Gly Lys Val Thr Asp Glu Met Phe Leu Glu Ala 40

Leu Asn Ser Lys Leu Gly Lys His Ala His Phe Ser Ser Arg Lys Leu

703

50 55 60 Cys Ala Ser Asp Lys Ile Leu Glu Phe Asp Arg Asn Phe Arg Ile Arg 70 75 His Tyr Ala Gly Asp Val Val Tyr Ser Val Ile Gly Phe Ile Asp Lys Asn Lys Asp Thr Leu Phe Gln Asp Phe Lys Arg Leu Met Tyr Asn Ser Ser Asn Pro Val Leu Lys Asn Met Trp Pro Glu Gly Lys Leu Ser Ile 115 . 120 125 Thr Glu Val Thr Lys Arg Pro Leu Thr Ala Ala Thr Leu Phe Lys Asn 135 Xaa Met Ile Ala Leu Val Asp Asn Leu Ala Ser Lys Glu Pro Tyr Tyr 150 155 160 Val Arg Cys Ile Lys Pro Asn Asp Lys Lys Ser Pro Gln Ile Phe Asp 165 170 Asp Glu Arg Cys Arg His Gln Val Glu Tyr Leu Gly Leu Leu Glu Asn 185 Val Arg Val Arg Arg Ala Gly Phe Ala Phe Arg Gln Thr Tyr Glu Lys 200 Phe Leu His Arg Tyr Lys Met Ile Ser Gly Ile Ala Pro Gly Pro Thr Met Asp Leu Pro Phe Arg Gln Arg Gly Cys Gln Glu Thr Asn Leu Asn 230 235 Gly Val Val Phe Arg 245

<210> 687

<211> 100

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 687
Ser Tyr Tyr Asn Thr Leu Ile Pro Tyr Cys Gln Cys Leu Phe Ala Ala
                                     10
Phe Pro His Phe Phe Tyr Ile Ile Xaa Thr Val Leu Ile Phe Phe Cys
His Trp Asp Cys Leu Ser Asp Thr Leu His Xaa Ser Leu Leu Leu Ala
                            40
Ile Trp Lys Gly Ser Lys Gly Tyr Ser Gly Gly Ala Xaa Arg Pro Gly
     50
                        55
Val Trp Xaa Ile Leu Gln Asn Arg Asn Lys Thr Pro Gln Ser Leu Pro
                     70
Leu Met Pro Ser Ile Gln Leu Phe Cys Cys Ile Ser Cys Leu Leu Phe
                                    90
Lys Lys Leu Pro
           100
<210> 688
<211> 60
<212> PRT
<213> Homo sapiens
<400> 688
Asp Leu Lys Ile Phe Pro Phe Gln Cys Cys Phe Asn Cys Ile Ser Tyr
Leu Val Phe Leu Ile Asp Ser Thr Val Ile Asn His Asn Thr Arg Gln
                                 25
Asn Cys Leu Leu Phe Gln Thr Arg Ala Ile Tyr Met Ser Val Tyr Met
```

705

35 40 45 Gly Pro Thr Ala Ser Leu Arg Lys Cys Ile Ile Cys 55 <210> 689 <211> 403 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (183) <223> Xaa equals any of the naturally occurring L-amino acids Ser Leu Ala Met Arg Asn Lys Lys Ile Leu Lys Glu Asp Glu Leu Leu Ser Glu Thr Gln Gln Ala Ala Phe His Gln Ile Ala Met Glu Pro Phe Glu Ile Asn Val Pro Lys Pro Lys Arg Arg Asn Gly Val Asn Phe Ser 40 Leu Ala Val Val Ile Tyr Leu Ile Leu Leu Thr Ala Gly Ala Gly 55 Leu Leu Val Val Gln Val Leu Asn Leu Gln Ala Arg Leu Arg Val Leu 70 75 Glu Met Tyr Phe Leu Asn Asp Thr Leu Ala Ala Glu Asp Ser Pro Ser Phe Ser Leu Leu Gln Ser Ala His Pro Gly Glu His Leu Ala Gln Gly 105 Ala Ser Arg Leu Gln Val Leu Gln Ala Gln Leu Thr Trp Val Arg Val 115 120 Ser His Glu His Leu Leu Gln Arg Val Asp Asn Phe Thr Gln Asn Pro 135 Gly Met Phe Arg Ile Lys Gly Glu Gln Gly Ala Pro Gly Leu Gln Gly 150 155

His Lys Gly Ala Met Gly Met Pro Gly Ala Pro Gly Pro Pro Gly Pro

706

Pro	Ala	Glu	Lys 180	Gly	Ala	Xaa	Gly	Ala 185	Met	Gly	Arg	Asp	Gly 190	Ala	Thr
Gly	Pro	Ser 195	Gly	Pro	Gln	Gly	Pro 200	Pro	Gly	Val	Lys	Gly 205	Glu	Ala	Gly
Leu	Gln 210	Gly	Pro	Gln	Gly	Ala 215	Pro	Gly	Lys	Gln	Gly 220	Ala	Thr	Gly	Thr
Pro 225	Gly	Pro	Gln	Gly	Glu 230	Lys	Gly	Ser	Lys	Gly 235	Asp	Gly	Gly	Leu	Ile 240
Gly	Pro	Lys	Gly	Glu 245	Thr	Gly	Thr	Lys	Gly 250	Glu	Lys	Gly	Asp	Leu 255	Gly
Leu	Pro	Gly	Ser 260	Lys	Gly	Asp	Arg	Gly 265	Met	Lys	Gly	Asp	Ala 270	Gly	Val
Met	Gly	Pro 275	Pro	Gly	Ala	Gln	Gly 280	Ser	Lys	Gly	Asp	Phe 285	Gly	Arg	Pro
Gly	Pro 290	Pro	Gly	Leu	Ala	Gly 295	Phe	Pro	Gly	Ala	Tys	Gly	Asp	Gln	Gly
Gln 305	Pro	Gly	Leu	Gln	Gly 310	Val	Pro	Gly	Pro	Pro 315	Gly	Ala	Val	Gly	His 320
Pro	Gly	Ala	Lys	Gly 325	Glu	Pro	Gly	Ser	Ala 330	Gly	Ser	Pro	Gly	Arg 335	Ala
Gly	Leu	Pro	Gly 340	Ser	Pro	Gly	Ser	Pro 345	Gly	Ala	Thr	Gly	Leu 350	Lys	Gly
Ser	Lys	Gly 355	Asp	Thr	Gly	Leu	Gln 360	Gly	Gln	Gln	Gly	Arg 365	Lys	Gly	Glu
Ser	Gly 370	Val	Pro	Gly	Pro	Ala 375	Gly	Val	Lys	Gly	Glu 380	Gln	Gly	Ser	Pro
Gly 385	Leu	Ala	Gly	Pro	Lys 390	Gly	Ala	Pro	Gly	Gln 395	Ala	Ala	Arg	Arg	Glu 400

Thr Arg Glu

<210> 690

<211> 494

<212> PRT

<213> Homo sapiens

707

<220>

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<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (271)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (462)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (463)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (483)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (490)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 690
Ser Arg Val Arg Lys Phe Pro Gly Arg Pro Thr Arg Pro Thr Glu Gln
                                    1.0
Ile Arg Gln Asp Arg Ser Lys Gly Thr Val His Phe Ala Val Val Ile
Thr Asp Gly His Val Thr Gly Ser Pro Cys Gly Gly Ile Lys Leu Xaa
Ala Glu Arg Ala Arg Glu Glu Gly Ile Arg Leu Phe Ala Val Ala Pro
Asn Gln Asn Leu Lys Glu Gln Gly Leu Arg Asp Ile Ala Ser Thr Pro
                     70
                                         75
```

708

His Glu Leu Tyr Arg Asn Asp Tyr Ala Thr Met Leu Pro Asp Ser Thr 90 Glu Ile Asp Gln Asp Thr Ile Asn Arg Ile Ile Lys Val Met Lys His 105 Glu Ala Tyr Gly Glu Cys Tyr Lys Val Ser Cys Leu Glu Ile Pro Gly Pro Ser Gly Pro Lys Gly Tyr Arg Gly Gln Lys Gly Ala Lys Gly Asn 135 Met Gly Glu Pro Gly Glu Pro Gly Gln Lys Gly Arg Gln Gly Asp Pro 150 155 Gly Ile Glu Gly Pro Ile Gly Phe Pro Gly Pro Lys Gly Val Pro Gly 165 170 Phe Lys Gly Glu Lys Gly Glu Phe Gly Ala Asp Gly Arg Lys Gly Ala 185 Pro Gly Leu Ala Gly Lys Asn Gly Thr Asp Gly Gln Lys Gly Lys Leu 195 Gly Arg Ile Gly Pro Pro Gly Cys Lys Gly Asp Pro Gly Asn Arg Gly 215 Pro Asp Gly Tyr Pro Gly Glu Ala Gly Ser Pro Gly Glu Arg Gly Asp Gln Gly Gly Lys Gly Asp Pro Gly Arg Pro Gly Arg Arg Gly Pro Pro Gly Glu Ile Gly Ala Lys Gly Ser Lys Gly Tyr Gln Gly Asn Xaa Gly 265 Ala Pro Gly Ser Pro Gly Val Lys Gly Ala Lys Gly Gly Pro Gly Pro 275 Arg Gly Pro Lys Gly Glu Pro Gly Arg Arg Gly Asp Pro Gly Thr Lys 295 Gly Ser Pro Gly Ser Asp Gly Pro Lys Gly Glu Lys Gly Asp Pro Gly Pro Glu Gly Pro Arg Gly Leu Ala Gly Glu Val Gly Asn Lys Gly Ala

Lys Gly Asp Arg Gly Leu Pro Gly Pro Arg Gly Pro Gln Gly Ala Leu

345

Gly Glu Pro Gly Lys Gln Gly Ser Arg Gly Asp Pro Gly Asp Ala Gly 360 Pro Arg Gly Asp Ser Gly Gln Pro Gly Pro Lys Gly Asp Pro Gly Arg 375 Pro Gly Phe Ser Tyr Pro Gly Pro Arg Gly Ala Pro Gly Glu Lys Gly Glu Pro Gly Pro Arg Gly Pro Glu Gly Gly Arg Gly Asp Phe Gly Leu 410 Lys Gly Glu Pro Gly Arg Lys Gly Glu Lys Gly Glu Pro Ala Asp Pro Gly Pro Pro Gly Glu Pro Gly Pro Arg Gly Pro Arg Gly Val Pro Gly 440 Pro Glu Gly Glu Pro Gly Pro Pro Gly Asp Pro Gly Leu Xaa Xaa Val 460 455 Arg Lys Arg Cys Cys Ala Leu Glu Val Val Phe Arg His Ser Thr Ala 475 465 470 Pro Xaa Xaa Leu Gly Thr Thr Asn Leu Xaa Trp Glu Lys Asn 485 490

<210> 691

<211> 433

<212> PRT

<213> Homo sapiens

<400> 691

Leu Val Glu Gln Ser Gly Lys Ala Leu Leu Gly Pro His Ile Ser Glu

Lys Ala Glu Leu Gly Ser Cys Leu Arg Ser Leu Gln Gly Gln Pro Arg

Arg Leu Ala Val Pro Ser Arg Pro Leu Ser Ala Asp Val Asn Glu Cys 40

Leu Thr Ile Pro Glu Ala Cys Lys Gly Glu Met Lys Cys Ile Asn His

Tyr Gly Gly Tyr Leu Cys Leu Pro Arg Ser Ala Ala Val Ile Asn Asp 65 70 75

Leu	His	Gly	Glu	Gly 85	Pro	Pro	Pro	Pro	Val 90	Pro	Pro	Ala	Gln	His 95	Pro
Asn	Pro	Cys	Pro 100	Pro	Gly	Tyr	Glu	Pro 105	Asp	Asp	Gln	Asp	Ser 110	Cys	Val
Asp	Val	Asp 115	Glu	Cys	Ala	Gln	Ala 120	Leu	His	Asp	Суз	Arg 125	Pro	Ser	Gln
Asp	Cys 130	His	Asn	Leu	Pro	Gly 135	Ser	Tyr	Gln	Cys	Thr 140	Cys	Pro	Asp	Gly
Tyr 145	Arg	Lys	Ile	Gly	Pro 150	Glu	Cys	Val	Asp	Ile 155	Asp	Glu	Cys	Arg	Туг 160
Arg	Tyr	Cys	Gln	His 165	Arg	Cys	Val	Asn	Leu 170	Pro	Gly	Ser	Phe	Arg 175	Cys
Gln	Cys	Glu	Pro 180	Gly	Phe	Gln	Leu	Gly 185	Pro	Asn	Asn	Arg	Ser 190	Суз	Val
Asp	Val	Asn 195	Glu	Cys	Asp	Met	Gly 200	Ala	Pro	Cys	Glu	Gln 205	Arg	Cys	Phe
Asn	Ser 210	Tyr	Gly	Thr	Phe	Leu 215	Cys	Arg	Cys	His	Gln 220	Gly	туг	Glu	Leu
His 225	Arg	Asp	Gly	Phe	Ser 230	Cys	Ser	Asp	Ile	Asp 235	Glu	Cys	Ser	Tyr	Ser 240
Ser	Tyr	Leu	Cys	Gln 245	Tyr	Arg	Cys	Val	Asn 250	Glu	Pro	Gly	Arg	Phe 255	Ser
Cys	His	Cys	Pro 260	Gln	Gly	Tyr	Gln	Leu 265	Leu	Ala	Thr	Arg	Leu 270	Cys	Gln
Asp	Ile	Asp 275	Glu	Cys	Glu	Ser	Gly 280	Ala	His	Gln	Cys	Ser 285	Glu	Ala	Gln
Thr	Cys 290	Val	Asn	Phe	His	Gly 295	Gly	Tyr	Arg	Cys	Val 300	Asp	Thr	Asn	Arg
Cys 305	Val	Glu	Pro	Tyr	11e 310	Gln	Val	Ser	Glu	Asn 315	Arg	Cys	Leu	Cys	Pro 320
Ala	Ser	Asn	Pro	Leu 325	Cys	Arg	Glu	Gln	Pro 330	Ser	Ser	Ile	Val	His 335	Arg
Tyr	Met	Thr	Ile 340	Thr	Ser	Glu	Arg	Ser 345	Val	Pro	Ala	Asp	Val 350	Phe	Gln

PCT/US00/05918

Ile Gln Ala Thr Ser Val Tyr Pro Gly Ala Tyr Asn Ala Phe Gln Ile 355 360 365

Arg Ala Gly Asn Ser Gln Gly Asp Phe Tyr Ile Arg Gln Ile Asn Asn $370 \hspace{1cm} 375 \hspace{1cm} 380$

Val Ser Ala Met Leu Val Leu Ala Arg Pro Val Thr Gly Pro Arg Glu 385 390 395 400

Tyr Val Leu Asp Leu Glu Met Val Thr Met Asn Ser Leu Met Ser Tyr
405 410 415

Arg Ala Ser Ser Val Leu Arg Leu Thr Val Phe Val Gly Ala Tyr Thr
420 425 430

Phe

<210> 692

WO 00/55180

<211> 182

<212> PRT

<213> Homo sapiens

<400> 692

Leu Gln Arg Asp Leu Arg Glu Gly His Ala Asn Pro Thr Ala Asp Leu

1 5 10 15

Lys Ser Leu Ala Glu Leu Gly Asp Cys Asn Glu Asp Leu Glu Gln Val 20 25 30

Glu Lys Cys Met Leu Pro Glu Cys Pro Ile Asp Cys Glu Leu Thr Glu 35 40 45

Trp Ser Gln Trp Ser Glu Cys Asn Lys Ser Cys Gly Lys Gly His Val
50 60

Ile Arg Thr Arg Met Ile Gln Met Glu Pro Gln Phe Gly Gly Ala Pro 65 70 75 80

Cys Pro Glu Thr Val Gln Arg Lys Lys Cys Arg Ile Arg Lys Cys Leu 85 90 95

Arg Asn Pro Ser Ile Gln Lys Leu Arg Trp Arg Glu Ala Arg Glu Ser

Arg Arg Ser Glu Gln Leu Lys Glu Glu Ser Glu Gly Glu Gln Phe Pro 115 120 125

Gly Cys Arg Met Arg Pro Trp Thr Ala Trp Ser Glu Cys Thr Lys Leu

712

130 135 140

Cys Gly Gly Gly Ile Gln Glu Arg Tyr Met Thr Val Lys Lys Arg Phe 145 150 155 160

Lys Ser Ser Gln Phe Thr Ser Cys Lys Asp Lys Lys Glu Ile Arg Ala 165 170 175

Cys Asn Val His Pro Cys 180

<210> 693

<211> 283

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 693

Ala Glu His Phe Pro Pro Gly Lys Tyr Arg Ile Ser Cys Pro Gly Gln
1 5 10 15

Glu Ser Asp Ala Gly Asp Arg Val Met Val Leu Asn Arg Ser Gly Met 20 25 30

Trp Gln Glu Glu Val Thr Val Pro Ser Val Gln Thr Phe Leu Ile Pro 35 40 45

Glu Ala Met Thr Phe Glu Glu Ala Ala Ala Leu Leu Val Asn Tyr Ile 50 60

Thr Ala Tyr Met Val Leu Phe Asp Phe Gly Asn Leu Gln Pro Gly His 65 70 75 80

Ser Val Leu Val His Met Ala Ala Gly Gly Val Gly Met Ala Ala Val
85 90 95

Xaa Leu Cys Arg Thr Val Glu Asn Val Thr Val Phe Gly Thr Ala Ser 100 105 110

Ala Ser Lys His Glu Ala Leu Lys Glu Asn Gly Val Thr His Pro Ile 115 120 125

Asp Tyr His Thr Thr Asp Tyr Val Asp Glu Ile Lys Lys Ile Ser Pro 130 135 140

713

Lys Gly Val Asp Ile Val Met Asp Pro Leu Gly Gly Ser Asp Thr Ala 145 155 Lys Gly Tyr Asn Leu Leu Lys Pro Met Gly Lys Val Val Thr Tyr Gly 165 170 Met Ala Asn Leu Leu Thr Gly Pro Lys Arg Asn Leu Met Ala Leu Ala Arg Thr Trp Trp Asn Gln Phe Ser Val Thr Ala Leu Gln Leu Leu Gln Ala Asn Arg Ala Val Cys Gly Phe His Leu Gly Tyr Leu Asp Gly Glu 215 Val Glu Leu Val Ser Gly Val Val Ala Arg Leu Leu Ala Leu Tyr Asn 230 235 Gln Gly His Ile Lys Pro His Ile Asp Ser Val Trp Pro Phe Glu Lys 245 250 Val Ala Asp Ala Met Lys Gln Met Gln Glu Lys Lys Asn Val Gly Lys 265 Val Leu Leu Val Pro Gly Pro Glu Lys Glu Asn 280 <210> 694 <211> 134 <212> PRT <213> Homo sapiens <400> 694 Gly Glu Ala Pro Asp Pro His Ala Ala Arg Thr Glu Leu Ser Ala Pro Leu Pro Ala Thr Ala Ser Arg Ala Ser Leu Ser Ser Asn Met Ala Lys 25 Ile Ser Ser Pro Thr Glu Thr Glu Arg Cys Ile Glu Ser Leu Ile Ala 35 40 Val Phe Gln Lys Tyr Ala Gly Lys Asp Gly Tyr Asn Tyr Thr Leu Ser

Lys Thr Glu Phe Leu Ser Phe Met Asn Thr Glu Leu Ala Ala Phe Thr

Lys Asn Gln Lys Asp Pro Gly Val Leu Asp Arg Met Met Lys Lys Leu

714

85 90 95

Asp Thr Asn Ser Asp Gly Gln Leu Asp Phe Ser Glu Phe Leu Asn Leu 100 105 110

Ile Gly Gly Leu Ala Met Ala Cys His Asp Ser Phe Leu Lys Ala Val 115 120 125

Pro Ser Gln Lys Arg Thr 130

<210> 695

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 695

Gly Ser Ser Glu Gly Ser Tyr Ser Ser Gln Thr Glu Thr Cys Pro Leu
1 5 10 15

Thr Pro Ser Leu Val Thr Gly Ser Met Phe Ala Gln Asn Phe Leu Arg

Gly Leu Ser Leu Gln Lys Ser Asn Leu Leu Pro Glu Cys Cys Leu Ala 35 40 45

Ser Glu Asn Leu Thr Leu Ser Phe Pro Ser Val Asn Gly His Arg Cys 50 60

Val Ala Gln Gly Ser Glu Thr Ser Glu Ser Arg Ala Gln Trp His Gly 65 70 75 80

Val Ala Leu Val Val Arg Lys Val Ile Gly Gln Leu Tyr Cys Lys Arg 85 90 95

Asn Lys Tyr Val Val Gln Phe Cys Lys Cys Gln Val Cys Ser Xaa Val 100 105 110

Leu

<211> 409 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (111) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (208) <223> Xaa equals any of the naturally occurring L-amino acids <400> 696 Gly Glu Arg Glu Gly Gly Asp Cys Lys Gln Asp Ser Leu Val Ile Asn Leu Asn Arg Ser Asn Pro Lys Leu Lys Asp Leu Tyr Ile Arg Pro Asn Ile Ala Gln Lys Arg Met Gln Gly Ser Leu Glu Ala His Val Asn Gly Phe Arg Phe Thr Ser Val Arg Gly Asp Lys Val Asp Ile Leu Tyr Asn 50 Asn Ile Lys His Ala Leu Phe Gln Pro Cys Asp Gly Glu Met Ile Ile 70 Val Leu His Phe His Leu Lys Asn Ala Ile Met Phe Gly Lys Lys Arg 85 90 His Thr Asp Val Gln Phe Tyr Thr Glu Val Gly Glu Ile Thr Xaa Asp 100 Leu Gly Lys His Gln His Met His Asp Arg Asp Leu Tyr Ala Glu 120 Gln Met Glu Arg Glu Met Arg His Lys Leu Lys Thr Ala Phe Lys Asn Phe Ile Glu Lys Val Glu Ala Leu Thr Lys Glu Glu Leu Glu Phe Glu 150 155 Val Pro Phe Arg Asp Leu Gly Phe Asn Gly Ala Pro Tyr Arg Ser Thr 170 Cys Leu Leu Gln Pro Thr Ser Ser Ala Leu Val Asn Ala Thr Glu Trp 180 185

716

Pro Pro Phe Val Val Thr Leu Asp Glu Val Glu Leu Ile His Phe Xaa 195 200 Arg Val Gln Phe His Leu Lys Asn Phe Asp Met Val Ile Val Tyr Lys Asp Tyr Ser Lys Lys Val Thr Met Ile Asn Ala Ile Pro Val Ala Ser 230 235 Leu Asp Pro Ile Lys Glu Trp Leu Asn Ser Cys Asp Leu Lys Tyr Thr 250 245 Glu Gly Val Gln Ser Leu Asn Trp Thr Lys Ile Met Lys Thr Ile Val 265 Asp Asp Pro Glu Gly Phe Phe Glu Gln Gly Gly Trp Ser Phe Leu Glu 280 Pro Glu Gly Glu Gly Ser Asp Ala Glu Glu Gly Asp Ser Glu Ser Glu 295 Ile Glu Asp Glu Thr Phe Asn Pro Ser Glu Asp Asp Tyr Glu Glu Glu Glu Glu Asp Ser Asp Glu Asp Tyr Ser Ser Glu Ala Glu Glu Ser Asp 330 325 Tyr Ser Lys Glu Ser Leu Gly Ser Glu Glu Glu Ser Gly Lys Asp Trp 345 Asp Glu Leu Glu Glu Glu Ala Arg Lys Ala Asp Arg Glu Ser Arg Tyr 360 Glu Glu Glu Glu Gln Ser Arg Ser Met Ser Arg Lys Arg Lys Ala 375 Ser Val His Ser Ser Gly Arg Gly Ser Asn Arg Gly Ser Arg His Ser

Ser Ala Pro Pro Lys Lys Lys Arg Lys 405

<210> 697

<211> 97

<212> PRT

<213> Homo sapiens

<400> 697

Asn Thr Gln Gly Leu Ile Phe Val Val Asp Ser Asn Asp Arg Glu Arg

717

1 5 10 15 Ile Gln Glu Val Ala Asp Glu Leu Gln Lys Met Leu Leu Val Asp Glu 20 25 Leu Arg Asp Ala Val Leu Leu Leu Phe Ala Asn Lys Gln Asp Leu Pro 40 Asn Ala Met Ala Ile Ser Glu Met Thr Asp Lys Leu Gly Leu Gln Ser 55 Leu Arg Asn Arg Thr Trp Tyr Val Gln Ala Thr Cys Ala Thr Gln Gly 70 75 Thr Gly Leu Tyr Glu Gly Leu Asp Trp Leu Ser Asn Glu Leu Ser Lys 90 Arg <210> 698 <211> 46 <212> PRT <213> Homo sapiens Trp Tyr Pro Glu Val Arg His His Cys Pro Asn Thr Pro Ile Ile Leu 1 5 10 Val Gly Thr Lys Leu Asp Leu Arg Asp Asp Lys Asp Thr Ile Glu Lys Leu Lys Glu Lys Lys Leu Thr Pro Ile Thr Tyr Pro Gln Val 40 <210> 699 <211> 126 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

Pro His Thr Val Leu Val Glu Phe Ser Ser Val Val Ala Asp Thr Gln

718

10 15 Glu Tyr Ile Ile Glu Xaa Thr Ala Asp Asp Ala Glu Thr Arg Glu Ala 25 30 Thr Glu Ile Ile Glu Gly Thr Gln Thr Glu Val Asp Ser His Ile Met 40 Lys Val Val Gln Gln Ile Val His Gln Ala Ser Ala Gly His Gln Ile 55 Ile Val Gln Asn Val Thr Met Asp Glu Glu Thr Ala Leu Gly Pro Glu 70 75 Ala Ala Ala Asp Thr Ile Thr Ile Ala Thr Pro Glu Ser Leu Thr Glu Gln Val Ala Met Thr Leu Pro Arg Pro Ser Ala Arg Ala Leu Cys 105 Leu Pro Pro Gly Gln Gly Gln Val Ala Leu Asn Arg Pro Leu 120 <210> 700 <211> 417 <212> PRT <213> Homo sapiens <400> 700 Ala Thr Gln Gly Val Val Thr Tyr Leu Gln Glu Ser Gly Val Met Pro Tyr Leu Ser Gln Leu Gly Phe Asp Val Val Gly Tyr Gly Cys Met Thr Cys Ile Gly Asn Ser Gly Pro Leu Pro Glu Pro Val Val Glu Ala Ile Thr Gln Gly Asp Leu Val Ala Val Gly Val Leu Ser Gly Asn Arg Asn Phe Glu Gly Arg Val His Pro Asn Thr Arg Ala Asn Tyr Leu Ala Ser Pro Pro Leu Val Ile Ala Tyr Ala Ile Ala Gly Thr Ile Arg Ile Asp Phe Glu Lys Glu Pro Leu Gly Val Asn Ala Lys Gly Gln Gln Val 100 105

Phe	Leu	Lys 115	Asp	Ile	Trp	Pro	120	Arg	Asp	GLu	Ile	125	Ala	Val	Glu
Arg	Gln 130	Tyr	Val	Ile	Pro	Gly 135	Met	Phe	Lys	Glu	Val 140	Tyr	Gln	Lys	Ile
Glu 145	Thr	Val	Asn	Glu	Ser 150	Trp	Asn	Ala	Leu	Ala 155	Thr	Pro	Ser	Asp	Lys 160
Leu	Phe	Phe	Trp	Asn 165	Ser	Lys	Ser	Thr	Tyr 170	Ile	Lys	Ser	Pro	Pro 175	Phe
Phe	Glu	Asn	Leu 180	Thr	Leu	Asp	Leu	Gln 185	Pro	Pro	Lys	Ser	11e 190	Val	Asp
Ala	Tyr	Val 195	Leu	Leu	Asn	Leu	Gly 200	Asp	Ser	Val	Thr	Thr 205	Asp	His	Ile
	210		_		Ile	215					220		_	-	
225			_		Thr 230		_			235		-	-		240
				245	Val				250					255	
			260		Leu		_	265					270		
		275			Leu		280		_			285			
	290				Leu	295				_	300		-		
305					Trp 310			-	_	315					320
				325	Glu				330					335	
			340		Ile			345					350		
		355			Thr		360					365			
Glu	Asn 370	Leu	Lys	Pro	Gln	Met 375	Lys	Val	Gln	Val	Lys	Leu	Asp	Thr	Gly

720

Lys Thr Phe Gln Ala Val Met Arg Phe Asp Thr Asp Val Glu Leu Thr 385 390 395 400

Tyr Phe Leu Asn Gly Gly Ile Leu Asn Tyr Met Ile Arg Lys Met Ala 405 410 415

Lys

<210> 701

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (145)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 701

Lys Ile Thr Val Ile Asn Cys Val Ile Gln Asn Ser Tyr Gln Ser Val
1 5 10 15

Leu Lys Leu Lys His Cys Lys Ser Gly Trp Gln Tyr Ser Val Leu Asn 20 25 30

Thr Phe Leu Ala Leu Val His Leu Arg Asn Glu Cys Ser Gly Gly Phe 35 40 45

Tyr Pro Arg Lys His Val Val Ile Arg Ile Val Gly Val Pro Ile Ile 50 55 60

Thr Ile Val Phe Cys Ile Leu Lys Lys Tyr Ser Pro His Phe Lys Cys
65 70 75 80

Phe Ile Leu Glu Asn Ser Leu Met His Thr Cys Gln Ile Tyr Ile Tyr 85 90 95

Ser Thr Asn Val Thr Phe Leu Phe Phe Val Leu Asp Val Arg Ala Cys 100 105 110

Ser Tyr Val Arg Tyr Leu His Lys Leu Leu His Tyr Phe Phe Leu Cys 115 120 125

Asn Thr Phe Leu Phe Val Tyr Val Val Gln Ile Tyr Ser Phe Leu Lys 130 135 140

Xaa

· 721

145

<210> 702 <211> 317 <212> PRT

<213> Homo sapiens

<400> 702

Asp Phe Ser Asn Leu Gly Thr Thr His Leu Leu Arg Leu Thr Ser Ser 1 10 15

Leu Thr Thr Lys Gly Ala Ser Ser Phe Lys Ile Thr Arg Gly Ile Glu
20 25 30

Ala Val Gly Gly Lys Leu Ser Val Thr Ala Thr Arg Glu Asn Met Ala 35 40 45

Tyr Thr Val Glu Cys Leu Arg Gly Asp Val Asp Ile Leu Met Glu Phe 50 55 60

Leu Leu Asn Val Thr Thr Ala Pro Glu Phe Arg Arg Trp Glu Val Ala 65 70 75 80

Asp Leu Gln Pro Gln Leu Lys Ile Asp Lys Ala Val Ala Phe Gln Asn 85 90 95

Pro Gln Thr His Val Ile Glu Asn Leu His Ala Ala Ala Tyr Arg Asn 100 105 110

Ala Leu Ala Asn Pro Leu Tyr Cys Pro Asp Tyr Arg Ile Gly Lys Val 115 120 125

Thr Ser Glu Glu Leu His Tyr Phe Val Gln Asn His Phe Thr Ser Ala 130 135 140

Arg Met Ala Leu Ile Gly Leu Gly Val Ser His Pro Val Leu Lys Gln 145 150 155 160

Val Ala Glu Gln Phe Leu Asn Met Arg Gly Gly Leu Gly Leu Ser Gly 165 170 175

Ala Lys Ala Asn Tyr Arg Gly Gly Glu Ile Arg Glu Gln Asn Gly Asp 180 185 190

Ser Leu Val His Ala Ala Phe Val Ala Glu Ser Ala Val Ala Gly Ser 195 200 205

Ala Glu Ala Asn Ala Phe Ser Val Leu Gln His Val Leu Gly Ala Gly 210 215 220

Pro His Val Lys Arg Gly Ser Asn Thr Thr Ser His Leu His Gln Ala 225 230 235 240

Val Ala Lys Ala Thr Gln Gln Pro Phe Asp Val Ser Ala Phe Asn Ala 245 250 255

Ser Tyr Ser Asp Ser Gly Leu Phe Gly Ile Tyr Thr Ile Ser Gln Ala 260 265 270

Thr Ala Ala Gly Asp Val Ile Lys Ala Ala Tyr Asn Gln Val Lys Thr 275 280 285

Ile Ala Gln Gly Asn Leu Ser Asn Thr Asp Val Gln Ala Ala Lys Asn 290 295 300

Lys Leu Lys Ala Gly Ile Pro Asn Val Ser Gly Val Phe 305 310 315

<210> 703

<211> 357

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (237)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 703

Lys Asp Leu Val Met Ala Thr Gly Leu Ser Glu His His Asn Met Val $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Trp Glu Val Lys Thr Asn Gln Met Pro Asn Ala Val Gln Lys Leu Leu 20 25 30

Leu Val Met Asp Lys Arg Ala Ser Gly Met Asn Asp Ser Leu Glu Leu 35 45

Leu Gln Cys Asn Glu Asn Leu Pro Ser Ser Pro Gly Tyr Asn Ser Cys 50 55 60

Asp Glu His Met Glu Leu Asp Asp Leu Pro Glu Leu Gln Ala Val Gln 65 70 75 80

Ser Asp Pro Thr Gln Ser Gly Met Tyr Gln Leu Ser Ser Asp Val Ser 85 90 95

His Gln Glu Tyr Pro Arg Ser Ser Trp Asn Gln Asn Thr Ser Asp Ile

			100					105					110		
Pro	Glu	Thr 115	Thr	туг	Arg	Glu	Asn 120	Glu	Val	Asp	Trp	Leu 125	Thr	Glu	Leu
Ala	Asn 130	Ile	Ala	Thr	Ser	Pro 135	Gln	Ser	Pro	Leu	Met 140	Gln	Cys	Ser	Phe
Tyr 145	Asn	Arg	Ser	Ser	Pro 150	Val	His	Ile	Ile	Ala 155	Thr	Ser	Lys	Ser	Leu 160
His	Ser	Tyr	Ala	Arg 165	Pro	Pro	Pro	Val	Ser 170	Ser	Ser	Ser	Lys	Ser 175	Glu
Pro	Ala	Phe	Pro 180	His	His	His	Trp	Lys 185	Glu	Glu	Thr	Pro	Val 190	Arg	His
Glu	Arg	Ala 195	Asn	Ser	Glu	Ser	Glu 200	Ser	Gly	Ile	Phe	Cys 205	Met	Ser	Ser
Leu	Ser 210	Asp	Asp	Asp	Asp	Leu 215	Gly	Trp	Cys	Asn	Ser 220	Trp	Pro	Ser	Thr
Val 225	Trp	His	Cys	Phe	Leu 230	Lys	Gly	Thr	Arg	Leu 235	Cys	Xaa	His	Lys	Gly 240
Ser	Asn	Lys	Glu	Trp 245	Gln	Asp	Val	Glu	Asp 250	Phe	Ala	Arg	Ala	Glu 255	Gly
Cys	Asp	Asn	Glu 260	Glu	Asp	Leu	Gln	Met 265	Gly	Ile	His	Lys	Gly 270	Tyr	Gly
Ser	Asp	Gly 275	Leu	Lys	Leu	Leu	Ser 280	His	Glu	Glu	Ser	Val 285	Ser	Phe	Gly
Glu	Ser 290	Val	Leu	Lys	Leu	Thr 295	Phe	Asp	Pro	Gly	Thr 300	Val	Glu	Asp	Gly
Leu 305	Leu	Thr	Val		Cys 310		Leu	Asp		Pro 315		Tyr	Val	-	Asn 320
Lys	Gly	Trp	Ser	Ser 325	Phe	Tyr	Pro	Ser	Leu 330	Thr	Val	Val	Gln	His 335	Gly
Ile	Pro	Суѕ	Cys 340	Glu	Ser	Ser	туr	Trp 345	Arg	Суз	Met	Ser	Thr 350	Ser	Trp
Thr	Pro	Arg	Cys	His											

WO 00/55180

Leu Val Cys Ala Pro

724

PCT/US00/05918

<210> 704 <211> 181 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (56) <223> Xaa equals any of the naturally occurring L-amino acids <400> 704 Ser His Leu Lys Lys Arg Thr Cys Gly Ser Trp Thr Ala Ser Lys Pro Phe Leu Ser Val Cys Xaa Val Phe Leu Leu Val Pro Leu Leu Pro Pro Leu Gln Asp Phe Arg Gly Thr Pro Thr Ser Leu Cys Pro Ser Ser Leu 40 Cys Pro Ile Arg Trp Gln Gly Xaa Cys Val Glu Arg Pro Gly Arg Cys 50 55 Arg Asn Gln Ser Pro Gly Gln Trp Cys Leu Ser Ser Pro Ser Leu Cys 70 Pro Cys Ala Pro Ser Cys Pro Arg Leu Gln Pro Arg Pro Trp Thr Cys 90 Ala Pro Val Cys Thr Cys Arg His Arg Gly Glu Gly Val Phe Leu 100 Gly Leu Pro Gln Thr Leu Pro Leu Ala Ala Ser Leu Pro Cys Leu His Ser Ser Thr Ile Thr Ile Ser Pro Lys Leu Leu Thr Gln Ala Lys 135 Ala Ala Ser Gly Leu Pro Ser Thr Ala Leu Leu His Leu Ala Tyr His 150 Ser Pro Gly Pro Pro Gly Glu Pro Val Leu Cys Ser Leu Cys Phe Arg 170

<21	0> 70	05													
	1> 3														
	2> PI														
<21	3> H	omo :	sapi	ens											
-10)> 7(n =													
			Arg	Gln	Δla	T.An	Mat	Pro	Va 1	Tla	T.au	Gln	Aen	בומ	Pro
1	ALG	116	ALG	5	AIG	neu	nec	rio	10	116	Dea	GIII	vab	15	FIO
•				•					+0						
Ser	Ala	Pro	Gly	His	Ala	Pro	His	Arg	Gln	Ala	Ser	Leu	Ser	Ile	Ser
			20					25					30		
Val	Ser		Ser	Gln	Ile	Gln		Asn	Val	Asp	Ile		Thr	Val	Tyr
		35					40					45			
Gl n	Tla	Dhe	Bro	700	C1	t7 n 1	T ou	C1**	e02	C1	Cln.	Dho	C1	\$2 a 1	\$75.1
GIII	50	FILE	Pro	Asp	GIU	55	ren	GIY	Ser	GIY	60	PHE	GIY	Vai	Val
	55					,,					00				
Tyr	Gly	Gly	Lys	His	Arg	Lys	Thr	Gly	Arg	Asp	Val	Ala	Val	Lys	Val
65					70					75					80
Ile	Asp	Lys	Leu	Arg	Phe	Pro	Thr	Lys	Gln	Glu	Ser	Gln	Leu	Arg	Asn
				85					90					95	
C1	1701	21-	T 10	T 0	~1 -	C	T	3	*** =	D	61	T1 -	**-1		T
GIU	val	AIA	Ile	ьeu	GIN	ser	ren	105	uis	PIO	GIY	116	110	ASII	nen
			100					103					110		
Glu	Cys	Met	Phe	Glu	Thr	Pro	Glu	Lys	Val	Phe	Val	Val	Met	Glu	Lys
		115					120	-				125			-
Leu		Gly	Asp	Met	Leu		Met	Ile	Leu	Ser		Glu	Lys	Gly	Arg
	130					135					140				
T.011	Pro	Glu	Arg	T.Ou	Thr	Luc	Dhe	T eu	Tla	Thr	Gl n	Tle	Len	172]	Λla
145	110	Olu	nry	neu	150	Буз	FILE	Leu	116	155	GIII	116	пеа	Val	160
Leu	Arg	His	Leu	His	Phe	Lys	Asn	Ile	Val	His	Cys	Asp	Leu	Lys	Pro
				165					170					175	
					_		_								
Glu	Asn	Val	Leu	Leu	Ala	Ser	Ala		Pro	Phe	Pro	Gln		Lys	Leu
			180					185					190		
C۷۹	Asn	Phe	Gly	Pho	Ala	Ara	Tle	Tle	Glu	Glu	Lve	Ser	Pho	Ara	Δra
-,5		195	1	1116	.114		200	116	31y	514	~,3	205	2116	. s. y	Ary
Ser	Val	Val	Gly	Thr	Pro	Ala	Tyr	Leu	Ala	Pro	Glu	Val	Leu	Leu	Asn
	210					215					220				

Gln 225	Gly	Tyr	Asn	Arg	Ser 230	Leu	Asp	Met	Trp	Ser 235	Val	Gly	Val	Ile	Met 240
Tyr	Val	Ser	Leu	Ser 245	Gly	Thr	Phe	Pro	Phe 250	Asn	Glu	Asp	Glu	Asp 255	Ile
Asn	Asp	Gln	Ile 260	Gln	Asn	Ala	Ala	Phe 265	Met	Tyr	Pro	Ala	Ser 270	Pro	Trp
Ser	His	Ile 275	Ser	Ala	Gly	Ala	Ile 280	Asp	Leu	Ile	Asn	Asn 285	Leu	Leu	Gln
Val	Lys 290	Met	Arg	Lys	Arg	Туг 295	Ser	Val	Asp	Lys	Ser 300	Leu	Ser	His	Pro
Trp 305	Leu	Gln	Glu	Туг	Gln 310	Thr	Trp	Leu	Asp	Leu 315	Arg	Glu	Leu	Glu	Gly 320
Lys	Met	Gly	Glu	Arg 325	Tyr	Ile	Thr	His	Glu 330	Ser	Asp	Asp	Ala	Arg 335	Trp
Glu	Gln	Phe	Ala 340	Ala	Glu	His	Pro	Leu 345	Pro	Gly	Ser	Gly	Leu 350	Pro	Thr
Asp	Arg	Asp 355	Leu	Gly	Gly	Ala	Cys 360	Pro	Pro	Gln	Asp	His 365	Asp	Met	Gln
Gly	Leu 370	Ala	Glu	Arg	Ile	Ser 375	Val	Leu							
<211 <212)> 7(l> 4] ?> PF 3> Ho	14 RT	sapie	ens											
<400)> 70	16													
Ser 1	Arg	Ala	Pro	Cys 5	Pro	Pro	Thr	Pro	Gln 10	Glu	Gly	Leu	Asp	Asp 15	Gly
Pro	Asp	Phe	Leu 20	Ser	Glu	Glu	Asp	Arg 25	Gly	Leu	Lys	Ala	Ile 30	Asn	Val
Asp	Leu	Gln	Ser	Asp	Ala	Ala	Leu	Gln	Val	Asp	Ile	Ser	Asp	Ala	Leu

35

40

50 55 60

Ser Glu Arg Asp Lys Val Lys Phe Thr Val His Thr Lys Ser Ser Leu

ero 65	Asn	Phe	Lys	GIn	70	Glu	Phe	Ser	Val	75	Arg	GIn	HIS	GIU	80 80
Phe	Ile	Trp	Leu	His 85	Asp	Ser	Phe	Val	Glu 90	Asn	Glu	Asp	Tyr	Ala 95	Gly
туг	Ile	Ile	Pro 100	Pro	Ala	Pro	Pro	Arg 105	Pro	Asp	Phe	Asp	Ala 110	Ser	Arg
Glu	Lys	Leu 115	Gln	Lys	Leu	Gly	Glu 120	Gly	Glu	Gly	Ser	Met 125	Thr	Lys	Glu
Glu	Phe 130	Thr	Lys	Met	Lys	Gln 135	Glu	Leu	Glu	Ala	Glu 140	Tyr	Leu	Ala	Ile
Phe 145	Lys	Lys	Thr	Val	Ala 150	Met	His	Glu	Val	Phe 155	Leu	Cys	Arg	Val	Ala 160
Ala	His	Pro	Ile	Leu 165	Arg	Arg	Asp	Leu	Asn 170	Phe	His	Val	Phe	Leu 175	Glu
			180					185					190		Leu
Glu	Asp	Phe 195	Phe	Lys	Asn	Met	Val 200	Lys	Ser	Ala	Asp	Gly 205	Val	Ile	Val
	210		-	_		215	-				220				Phe
Leu 225	Leu	Glu	Tyr	His	Asn 230	Arg	Val	Lys	Asp	Ala 235	Ser	Ala	Lys ·	Ser	Asp 240
				245	His				250	-		_		255	
			260		Ala			265					270		
		275			Val		280					285			
	290				Ala	295					300				
305					Glu 310					315					320
Arg	Ser	Arg	Ser	Leu 325	Val	Asp	Tyr	Glu	Asn 330	Ala	Asn	Lys	Ala	Leu 335	Asp

728

Lys Ala Arg Ala Lys Asn Lys Asp Val Leu Gln Ala Glu Thr Ser Gln 340 345 350

Gln Leu Cys Cys Gln Lys Phe Glu Lys Ile Ser Glu Ser Ala Lys Gln 355 360 365

Glu Leu Ile Asp Phe Lys Thr Arg Arg Val Ala Ala Phe Arg Lys Asn 370 375 380

Leu Val Glu Leu Ala Glu Leu Glu Leu Lys His Ala Lys Gly Asn Leu 385 390 395 400

Gln Leu Leu Gln Asn Cys Leu Ala Val Leu Asn Gly Asp Thr 405 410

<210> 707

<211> 123

<212> PRT

<213> Homo sapiens

<400> 707

Ala Arg Ala Glu Phe Gly Thr Arg Phe His Phe Pro Tyr Leu Leu Arg $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Ser Thr Ser Phe Phe Ser Leu Cys Pro Phe Cys Phe Ser Gln Ser 20 25 30

Pro Arg Ile Met Lys Val Ala Ser Gly Ser Thr Ala Thr Ala Ala Ala 35 40 45

Gly Pro Ser Cys Ala Leu Lys Ala Gly Lys Thr Ala Ser Gly Ala Gly 50 60

Glu Val Val Arg Cys Leu Ser Glu Gln Ser Val Ala Ile Ser Arg Cys 65 70 75 80

Ala Gly Gly Ala Gly Ala Arg Leu Pro Ala Leu Leu Asp Glu Gln Gln 85 90 95

Val Asn Val Leu Leu Tyr Asp Met Asn Gly Cys Tyr Ser Arg Leu Lys 100 105 110

Glu Leu Val Pro Thr Leu Pro Gln Asn Arg Lys 115 120

<210> 708

<211> 115

<212> PRT

<213> Homo sapiens

<400> 708

Gly Arg Glu Tyr Leu Val Pro Gln Gln Gly Arg Gln Phe Leu Ser Gln l $$ 10 $$ 15

Lys Thr Val Cys Ser Val Val Lys Ile Val Ala Cys Met Phe Ser Ser 20 25 30

Glu Arg Val Leu Leu Pro Tyr Ser Leu Ser Ala Ser Pro Ala Cys Ser 35 40 45

Cys Cys Met Val Ile Ala Leu Gly His Gln Ser Asn Asp Cys Lys Ser 50 60

Ala Trp Ile Phe Thr Cys Arg Gly Tyr Ser Cys Ile Val Arg Ser Pro 65 70 75 80

Ser Pro Ala Glu Ser Ser Leu His Trp Leu Ala Val Cys Cys Val Phe $85 \hspace{1cm} 90 \hspace{1cm} 95$

His Ser Phe Gln Lys Ser Tyr Ile Val Ser Leu Asp Ile Phe Lys Asn 100 105 110

Cys Asp Phe

<210> 709

<211> 318

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (315)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 709

Gly Arg Arg Asp Gln Pro Pro Val Ser Ser Gly Arg Pro Pro Leu Trp
1 5 10 15

Gly Leu Arg Gly Met Met Glu Ala Leu Gly Phe Leu Lys Leu Glu Val 20 25 30

As Gly Pro Met Val Thr Val Ala Leu Ser Val Ala Leu Leu Ala Leu 35 45

Leu Lys Trp Tyr Ser Thr Ser Ala Phe Ser Arg Leu Glu Lys Leu Gly

	50					55					60				
Leu 65	Arg	His	Pro	Lys	Pro 70	Ser	Pro	Phe	Ile	Gly 75	Asn	Leu	Thr	Phe	Phe 80
Arg	Gln	Gly	Phe	Trp 85	Glu	Ser	Gln	Met	Glu 90	Leu	Arg	Lys	Leu	Tyr 95	Gly
Pro	Leu	Cys	Gly 100	Tyr	Tyr	Leu	Gly	Arg 105	Arg	Met	Phe	Ile	Val 110	Ile	Ser
Glu	Pro	Asp 115	Met	Ile	Lys	Gln	Val 120	Leu	Val	Glu	Asn	Phe 125	Ser	Asn	Phe
Thr	Asn 130	Arg	Met	Ala	Ser	Gly 135	Leu	Glu	Phe	Lys	Ser 140	Val	Ala	Asp	Ser
Val 145	Leu	Phe	Leu	Arg	Asp 150	Lys	Arg	Trp	Glu	Glu 155	Val	Arg	Gly	Ala	Leu 160
Met	Ser	Ala	Phe	Ser 165	Pro	Glu	Lys	Leu	Asn 170	Glu	Met	Val	Pro	Leu 175	Ile
Ser	Gln	Ala	Cys 180	Asp	Leu	Leu	Leu	Ala 185	His	Leu	Lys	Arg	Туг 190	Ala	Glu
Ser	Gly	Asp 195	Ala	Phe	Asp	Ile	Gln 200	Arg	Cys	Tyr	Cys	Asn 205	Tyr	Thr	Thr
Asp	Val 210	Val	Ala	Ser	Val	Ala 215	Phe	Gly	Thr	Pro	Val 220	Asp	Ser	Trp	Gln
Ala 225	Pro	Glu	Asp	Pro	Phe 230	Val	Lys	His	Cys	Lys 235	Arg	Phe	Phe	Glu	Phe 240
Сув	Ile	Pro	Arg	Pro 245	Ile	Leu	Val	Leu	Leu 250	Leu	Ser	Phe	Pro	Ser 255	Ile
Met	Val	Pro	Leu 260	Ala	Arg	Ile	Leu	Pro 265	Asn	Lys	Asn	Arg	Asp 270	Glu	Leu
Asn	Gly	Phe 275	Phe	Asn	Lys	Leu	Ile 280	Arg	Asn	Val	Ile	Cys 285	Leu	Ala	Gly
Pro	Ala 290	Ser	Cys	Arg	Arg	Glu 295	Ala	Glu	Arg	Leu	Pro 300	Pro	Asn	Gly	Pro
31y 305	Cys	Pro	Thr	Phe	Cys 310	Lys	Ser	His	Gly	Xaa 315	Ala	Arg	Leu		

731

<210> 710 <211> 188 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (183) <223> Xaa equals any of the naturally occurring L-amino acids Gly Cys Leu Gly Lys Arg Met Ile Leu Asn Lys Ala Leu Met Leu Gly 10 Ala Leu Ala Leu Thr Thr Val Met Ser Pro Cys Gly Gly Glu Asp Ile Val Ala Asp His Val Ala Ser Tyr Gly Val Asn Leu Tyr Gln Ser Tyr Gly Pro Ser Gly Gln Tyr Thr His Glu Phe Asp Gly Asp Glu Gln Phe Tyr Val Asp Leu Gly Arg Lys Glu Thr Val Trp Cys Leu Pro Val Leu 75 70 Arg Gln Phe Arg Phe Asp Pro Gln Phe Ala Leu Thr Asn Ile Ala Val Leu Lys His Asn Leu Asn Ser Leu Ile Lys Arg Ser Asn Ser Thr Ala 105 Ala Thr Asn Glu Val Pro Glu Val Thr Val Phe Ser Lys Ser Pro Val 115 120 Thr Leu Gly Gln Pro Asn Ile Leu Ile Cys Leu Val Asp Asn Ile Phe 135 Pro Pro Val Val Asn Ile Thr Trp Leu Ser Asn Gly His Ser Val Thr 145 150 155 Glu Gly Val Ser Glu Thr Ser Phe Leu Ser Lys Ser Asp His Ser Phe 170 165 Phe Lys Ile Ser Tyr Leu Xaa Leu Pro Pro Phe Cys

732

<211> 374

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 711

Gly Glu Val Leu Arg Arg Gly Lys Ala Glu Leu Glu Glu Gln Lys Arg 1 5 10 15

Leu Leu Asp Arg Thr Val Asp Arg Leu Asn Lys Glu Leu Glu Lys Ile 20 25 30

Gly Glu Asp Ser Lys Gln Ala Leu Gln Gln Leu Gln Ala Gln Leu Glu
35 40 45

Asp Tyr Lys Glu Lys Ala Arg Arg Glu Val Ala Asp Ala Gln Arg Gln 50 55 60

Ala Lys Asp Trp Ala Ser Glu Ala Glu Lys Thr Ser Gly Gly Leu Ser 65 70 75 80

Arg Leu Gln Asp Xaa Ile Gln Arg Leu Arg Gln Ala Leu Gln Ala Ser 85 90 95

Gln Ala Glu Arg Asp Thr Ala Arg Leu Asp Lys Glu Leu Leu Ala Gln 100 105 110

Arg Leu Gln Gly Leu Glu Gln Glu Ala Glu Asn Lys Lys Arg Ser Gln 115 120 125

Asp Asp Arg Ala Arg Gln Leu Lys Gly Leu Glu Glu Lys Val Ser Arg 130 135 140

Leu Glu Thr Glu Leu Asp Glu Glu Lys Asn Thr Val Glu Leu Leu Thr 145 150 155 160

Asp Arg Val Asn Arg Gly Arg Asp Gln Val Asp Gln Leu Arg Thr Glu 165 170 175

Leu Met Gln Glu Arg Ser Ala Arg Gln Asp Leu Glu Cys Asp Lys Ile 180 185 190

Ser Leu Glu Arg Gln Asn Lys Asp Leu Lys Thr Arg Leu Ala Ser Ser 195 200 205

Glu Gly Phe Gln Lys Pro Ser Ala Ser Leu Ser Gln Leu Glu Ser Gln 210 215 220

Asn Gln Leu Leu Gln Glu Arg Leu Gln Ala Glu Glu Arg Glu Lys Thr 230 235 Val Leu Gln Ser Thr Asn Arg Lys Leu Glu Arg Lys Val Lys Glu Leu 245 250 Ser Ile Gln Ile Glu Asp Glu Arg Gln His Val Asn Asp Gln Lys Asp 260 Gln Leu Ser Leu Arg Val Lys Ala Leu Lys Arg Gln Val Asp Glu Ala Glu Glu Glu Ile Glu Arg Leu Asp Gly Leu Arg Lys Lys Ala Gln Arg 290 295 300 Glu Val Glu Glu Gln His Glu Val Asn Glu Gln Leu Gln Ala Arg Ile 315 310 Lys Ser Leu Glu Lys Asp Ser Trp Arg Lys Ala Ser Arg Ser Ala Ala 330 325 Glu Ser Ala Leu Lys Asn Glu Gly Leu Ser Ser Asp Glu Glu Phe Asp 340 Ser Val Tyr Asp Pro Ser Ser Ile Ala Ser Leu Leu Thr Glu Ser Asn 360 365 Leu Gln Thr Ser Ser Cys 370 <210> 712 <211> 413 <212> PRT <213> Homo sapiens <400> 712 Gly Gly Phe Gly Leu Leu Gly Phe Leu Ser Ala Leu Leu Ala Leu Val Leu Arg Ala Arg Ala Gly Ser Gln Thr Pro Gln Thr Leu Leu Pro Ala Ala Ala Phe Arg Arg Gly Glu Thr Pro Arg Phe Lys Met Ser Leu 40 Phe Gly Thr Thr Ser Gly Phe Gly Thr Ser Gly Thr Ser Met Phe Gly

55

PCT/US00/05918

Ser 65	Ala	Thr	Thr	Asp	Asn 70	His	Asn	Pro	Met	Lys 75	Asp	Ile	Glu	Val	Thr 80
Ser	Ser	Pro	Asp	Asp 85	Ser	Ile	Gly	Cys	Leu 90	Ser	Phe	Ser	Pro	Pro 95	Thr
Leu	Pro	Gly	Asn 100	Phe	Leu	Ile	Ala	Gly 105	Ser	Trp	Ala	Asn	Asp 110	Val	Arg
Cys	Trp	Glu 115	Val	Gln	Asp	Ser	Gly 120	Gln	Thr	Ile	Pro	Lys 125	Ala	Gln	Gln
Met	His 130	Thr	Gly	Pro	Val	Leu 135	Asp	Val	Cys	Trp	Ser 140	Asp	Asp	Gly	Ser
Lys 145	Val	Phe	Thr	Ala	Ser 150	Cys	Asp	Lys	Thr	Ala 155	Lys	Met	Trp	Asp	Leu 160
Ser	Ser	Asn	Gln	Ala 165	Ile	Gln	Ile	Ala	Gln 170	His	Asp	Ala	Pro	Val 175	Lys
Thr	Ile	His	Trp 180	Ile	Lys	Ala	Pro	Asn 185	Tyr	Ser	Суз	Val	Met 190	Thr	Gly
Ser	Trp	Asp 195	Lys	Thr	Leu	Lys	Phe 200	Trp	Asp	Thr	Arg	Ser 205	Ser	Asn	Pro
Met	Met 210	Val	Leu	Gln	Leu	Pro 215	Glu	Arg	Cys	Tyr	Cys 220	Ala	Asp	Val	Ile
Tyr 225	Pro	Met	Ala	Val	Val 230	Ala	Thr	Ala	Glu	Arg 235	Gly	Leu	Ile	Val	Tyr 240
Gln	Leu	Glu	Asn	Gln 245	Pro	Ser	Glu	Phe	Arg 250	Arg	Ile	Glu	Ser	Pro 255	Leu
Lys	His	Gln	His 260	Arg	Cys	Val	Ala	Ile 265	Phe	Lys	Asp	Lys	Gln 270	Asn	Lys
Pro	Thr	Gly 275	Phe	Ala	Leu	Gly	Ser 280	Ile	Glu	Gly	Arg	Val 285	Ala	Ile	His
Tyr	11e 290	Asn	Pro	Pro	Asn	Pro 295	Ala	Lys	Asp	Asn	Phe 300	Thr	Phe	Lys	Сув
His 305	Arg	Ser	Asn	Gly	Thr 310	Asn	Thr	Ser	Ala	Pro 315	Gln	Asp	Ile	Туг	Ala 320
Val	Asn	Gly		Ala	Phe	His	Pro		His	-	Thr	Leu	Ala	Thr	Val

735

Gly Ser Asp Gly Arg Phe Ser Phe Trp Asp Lys Asp Ala Arg Thr Lys

Leu Lys Thr Ser Glu Gln Leu Asp Gln Pro Ile Ser Ala Cys Cys Phe 355 360 365

Asn His Asn Gly Asn Ile Phe Ala Tyr Ala Ser Ser Tyr Asp Trp Ser 370 380

Lys Gly His Glu Phe Tyr Asn Pro Gln Lys Lys Asn Tyr Ile Phe Leu 385 390 395 400

Arg Asn Ala Ala Glu Glu Leu Lys Pro Arg Asn Lys Lys 405 410

<210> 713

<211> 374

<212> PRT

<213> Homo sapiens

<400> 713

Ser Thr His Ala Ser Ala His Ala Ser Gly Pro Thr Arg Pro Gly Ala 1 5 10 15

Trp Ser Ala Ala Ala Gly Pro Gly Ala Gly Ala Ala Ala Ala Ala 20 25 30

Thr Gly Gly Gly Gly Ala Leu Glu Ala Ala Met Ala Lys Gln Tyr 35 40 45

Asp Ser Val Glu Cys Pro Phe Cys Asp Glu Val Ser Lys Tyr Glu Lys
50 60

Leu Ala Lys Ile Gly Gln Gly Thr Phe Gly Glu Val Phe Lys Ala Arg
65 70 75 80

His Arg Lys Thr Gly Gln Lys Val Ala Leu Lys Lys Val Leu Met Glu 85 90 95

Asn Glu Lys Glu Gly Phe Pro Ile Thr Ala Leu Arg Glu Ile Lys Ile 100 105 110

Leu Gln Leu Lys His Glu Asn Val Val Asn Leu Ile Glu Ile Cys 115 120 125

Arg Thr Lys Ala Ser Pro Tyr Asn Arg Cys Lys Gly Ser Ile Tyr Leu 130 135 140

Val Phe Asp Phe Cys Glu His Asp Leu Ala Gly Leu Leu Ser Asn Val

145					150					122					100
Leu	Val	Lys	Phe	Thr 165	Leu	Ser	Glu	Ile	Lys 170	Arg	Val	Met	Gln	Met 175	Leu
Leu	Asn	Gly	Leu 180	Tyr	Tyr	Ile	His	Arg 185	Asn	Lys	Ile	Leu	His 190	Arg	Asp
Met	Lys	Ala 195	Ala	Asn	Val	Leu	Ile 200	Thr	Arg	Asp	Gly	Val 205	Leu	Lys	Leu
Ala	Asp 210	Phe	Gly	Leu	Ala	Arg 215	Ala	Phe	Ser	Leu	Ala 220	Lys	Asn	Ser	Gln
Pro 225	Asn	Arg	Tyr	Thr	Asn 230	Arg	Val	Val	Thr	Leu 235	Trp	Tyr	Arg	Pro	Pro 240
Glu	Leu	Leu	Leu	Gly 245	Glu	Arg	Asp	Tyr	Gly 250	Pro	Pro	Ile	Asp	Leu 255	Trp
Gly	Ala	Gly	Cys 260	Ile	Met	Ala	Glu	Met 265	Trp	Thr	Arg	Ser	Pro 270	Ile	Met
Gln	Gly	Asn 275	Thr	Glu	Gln	His	Gln 280	Leu	Ala	Leu	Ile	ser 285	Gln	Leu	Cys
Gly	Ser 290	Ile	Thr	Pro	Glu	Val 295	Trp	Pro	Asn	Val	Asp 300	Asn	Tyr	Glu	Leu
Tyr 305	Glu	Lys	Leu	Glu	Leu 310	Val	Lys	Gly	Gln	Lys 315	Arg	Lys	Val	Lys	Asp 320
Arg	Leu	Lys	Ala	Met 325	Cys	Val	Thr	His	Thr 330	His	Trp	Thr	Ser	Ser 335	Thr
Ser	Cys	Trp	Cys 340	Trp	Thr	Leu	Pro	Ser 345	Ala	Ser	Thr	Ala	Met 350	Thr	Pro
Ser	Thr	Thr 355	Thr	Ser	Ser	Gly	Pro 360	Thr	Pro	Cys	Pro	Pro 365	Thr	Ser	Arg
Ala	Cys 370	Ser	Pro	Pro	Thr										

<210> 714

<211> 764

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (44) <223> Xaa equa

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (81)

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<220>

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<222> (125)

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<220>

<221> SITE

<222> (725)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 714

Asp Asp Val Gln Ser Ile Asn Trp Leu Arg Asp Gly Val Gln Leu Ala 1 5 10 15

Glu Ser Asn Arg Thr Arg Ile Thr Gly Glu Glu Val Glu Val Gln Asp
20 25 30

Ser Val Pro Ala Asp Ser Gly Leu Tyr Ala Cys Xaa Thr Ser Ser Pro 35 40

Ser Gly Ser Asp Thr Thr Tyr Phe Ser Val Asn Val Ser Xaa Ala Leu 50 60

Pro Ser Ser Glu Asp Asp Asp Asp Asp Asp Ser Ser Ser Glu Gly 65 70 75 80

Xaa Glu Thr Asp Asn Thr Lys Pro Asn Arg Met Pro Val Ala Pro Tyr
85 90 95

Trp Thr Ser Pro Glu Lys Met Glu Lys Lys Leu His Ala Val Pro Ala 100 105 110

Ala Lys Thr Val Lys Phe Lys Cys Pro Ser Ser Gly Xaa Pro Asn Pro 115 120 125

Thr Leu Arg Trp Leu Lys Asn Gly Lys Glu Phe Lys Pro Asp His Arg

738

130 135 140 Ile Gly Gly Tyr Lys Val Arg Tyr Ala Thr Trp Ser Ile Ile Met Asp 150 155 Ser Val Val Pro Ser Asp Lys Gly Asn Tyr Thr Cys Ile Val Glu Asn 165 170 Glu Tyr Gly Ser Ile Asn His Thr Tyr Gln Leu Asp Val Val Glu Arg 185 Ser Pro His Arg Pro Ile Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr 200 Val Ala Leu Gly Ser Asn Val Glu Phe Met Cys Lys Val Tyr Ser Asp 215 Pro Gln Pro His Ile Gln Trp Leu Lys His Ile Glu Val Asn Gly Ser 230 235 Lys Ile Gly Pro Asp Asn Leu Pro Tyr Val Gln Ile Leu Lys Thr Ala 245 250 Gly Val Asn Thr Thr Asp Lys Glu Met Glu Val Leu His Leu Arg Asn 265 Val Ser Phe Glu Asp Ala Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser 280 Ile Gly Leu Ser His His Ser Ala Trp Leu Thr Val Leu Glu Ala Leu 290 295 Glu Glu Arg Pro Ala Val Met Thr Ser Pro Leu Tyr Leu Glu Ile Ile 315 Ile Tyr Cys Thr Gly Ala Phe Leu Ile Ser Cys Met Val Gly Ser Val Ile Val Tyr Lys Met Lys Ser Gly Thr Lys Lys Ser Asp Phe His Ser 340 345 Gln Met Ala Val His Lys Leu Ala Lys Ser Ile Pro Leu Arg Arg Gln 360 Val Thr Val Ser Ala Asp Ser Ser Ala Ser Met Asn Ser Gly Val Leu 370 375 Leu Val Arg Pro Ser Arg Leu Ser Ser Ser Gly Thr Pro Met Leu Ala 395

Gly Val Ser Glu Tyr Glu Leu Pro Glu Asp Pro Arg Trp Glu Leu Pro

•

				405					410					415	
Arg	Asp	Arg	Leu 420	Val	Leu	Gly	Lys	Pro 425	Leu	Gly	Glu	Gly	Cys 430	Phe	Gly
Gln	Val	Val 435	Leu	Ala	Glu	Ala	Ile 440	Gly	Leu	Asp	Lys	Asp 445	Lys	Pro	Asn
Arg	Val 450	Thr	Lys	Val	Ala	Val 455	Lys	Met	Leu	Lys	ser 460	Asp	Ala	Thr	Glu
Lys 465	Asp	Leu	Ser	Asp	Leu 470	Ile	Ser	Glu	Met	Glu 475	Met	Met	Lys	Met	Ile 480
Gly	Lys	His	Lys	Asn 485	Ile	Ile	Asn	Leu	Leu 490	Gly	Ala	Суз	Thr	Gln 495	Asp
Gly	Pro	Leu	Туг 500	Val	Ile	Val	Glu	Туг 505	Ala	Ser	Lys	Gly	Asn 510	Leu	Arg
Glu	Tyr	Leu 515	Gln	Ala	Arg	Arg	Pro 520	Pro	Gly	Leu	Glu	Tyr 525	Cys	Tyr	Asn
Pro	Ser 530	His	Asn	Pro	Glu	Glu 535	Gln	Leu	Ser	Ser	Lys 540	Asp	Leu	Val	Ser
Cys 545	Ala	туг	Gln	Val	Ala 550	Arg	Gly	Met	Glu	Tyr 555	Leu	Ala	Ser	Lys	Lys 560
Cys	Ile	His	Arg	Asp 565	Leu	Ala	Ala	Arg	Asn 570	Val	Leu	Val	Thr	Glu 575	Asp
Asn	Val	Met	Lys 580	Ile	Ala	Asp	Phe	Gly 585	Leu	Ala	Arg	Asp	Ile 590	His	His
Ile	Asp	Туг 595	Tyr	Lys	Lys	Thr	Thr 600	Asn	Gly	Arg	Leu	Pro 605	Val	Lys	Trp
Met	Ala 610	Pro	Glu	Ala	Leu	Phe 615	Asp	Arg	Ile	Tyr	Thr 620	His	Gln	Ser	Asp
Val 625	Trp	Ser	Phe	Gly	Val 630	Leu	Leu	Trp	Glu	Ile 635	Phe	Thr	Leu	Gly	Gly 640
Ser	Pro	Tyr	Pro	Gly 645	Val	Pro	Val	Glu	Glu 650	Leu	Phe	Lys	Leu	Leu 655	Lys
Glu	Gly	His	Arg 660	Met	Asp	Lys	Pro	ser 665	Asn	Cys	Thr	Asn	Glu 670	Leu	Tyr
Met	Met	Met	Arg	Asp	Суѕ	Trp	His	Ala	Val	Pro	Ser	Gln	Arg	Pro	Thr

740

685

680

675

Phe Lys Gln Leu Val Glu Asp Leu Asp Arg Ile Val Ala Leu Thr Ser 690 695 700 Asn Gln Glu Tyr Leu Asp Leu Ser Met Pro Leu Asp Gln Tyr Ser Pro 710 715 Ser Phe Pro Asp Xaa Arg Ser Ser Thr Cys Ser Ser Gly Glu Asp Ser 725 730 Val Phe Ser His Glu Pro Leu Pro Glu Glu Pro Cys Leu Pro Arg His 740 745 Pro Ala Gln Leu Ala Asn Gly Gly Leu Lys Arg Arg 755 760 <210> 715 <211> 160 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (139) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (145) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (147) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (149) <223> Xaa equals any of the naturally occurring L-amino acids Asp Pro Thr Gly Val Gln Gly Trp Arg Glu Asn Leu Cys Glu Glu Arg

Glu Gly Ala Ser Arg Glu Phe Lys Gly Arg Cys Glu Xaa Ile Met Asp

			20					25					30		
Ala	Met	Lys 35	Arg	Gly	Leu	Суѕ	Cys 40	Val	Leu	Leu	Leu	Cys 45	Gly	Ala	Val
Phe	Val 50	Ser	Pro	Ser	Gln	Glu 55	Ile	His	Ala	Arg	Phe 60	Arg	Arg	Gly	Ala
Arg 65	Ser	Tyr	Gln	Val	Ile 70	Суѕ	Arg	Asp	Glu	Lys 75	Thr	Gln	Met	Ile	Туг 80
Gln	Gln	His	Gln	Ser 85	Trp	Leu	Arg	Pro	Val 90	Leu	Arg	Ser	Asn	Arg 95	Val
Glu	туг	Cys	Trp 100	Cys	Asn	Ser	Gly	Arg 105	Ala	Gln	Cys	His	Ser 110	Val	Pro
Val	Lys	Ser 115	Cys	Ser	Glu	Pro	Arg 120	Сув	Phe	Asn	Gly	Gly 125	Thr	Cys	Gln
Gln	Ala 130	Cys	Thr	Ser	Gln	Ile 135	Ser	Cys	Ala	Xaa	Ala 140	Pro	Lys	Ile	Ser
Xaa 145	Asn	Xaa	Val	Xaa	Asn 150	Thr	Arg	Pro	Cys	Tyr 155	Glu	Thr	Arg	Ala	Gln 160
		_												•	
)> 71 L> 22														
	2> PF														
<213	3> но	omo s	sapie	ens											
<400)> 7]	. 6													
Arg 1	Ser	Gly	Pro	Arg 5	Thr	Pro	Ala	Cys	Pro 10	Gly	Leu	Ala	Ser	Cys 15	Thr
Cys	Cys	Pro	Leu 20	Thr	Pro	Gly	Lys	Met 25	Ala	Gly	Pro	Trp	Thr 30	Phe	Thr
Leu	Leu	Cys 35	Gly	Leu	Leu	Ala	Ala 40	Thr	Leu	Ile	Gln	Ala 45	Thr	Leu	Ser
Pro	Thr 50	Ala	Val	Leu	Ile	Leu 55	Gly	Pro	Lys	Val	Ile 60	Lys	Glu	Lys	Leu

Thr Gln Glu Leu Lys Asp His Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Ser Ala Met Arg Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser Leu Val Asn Thr Val Leu Lys His Ile Ile Trp Leu Lys 100 105 Val Ile Thr Ala Asn Ile Leu Gln Leu Gln Val Lys Pro Ser Ala Asn 120 Asp Gln Glu Leu Leu Val Lys Ile Pro Leu Asp Met Val Ala Gly Phe 135 140 Asn Thr Pro Leu Val Lys Thr Ile Val Glu Phe His Met Thr Thr Glu 150 155 Ala Gln Ala Thr Ile Arg Met Asp Thr Ser Ala Ser Gly Pro Thr Arg 170 Leu Val Leu Ser Asp Cys Ala Thr Ser His Gly Ser Leu Arg Ile Gln 180 185 Leu Leu His Lys Leu Ser Phe Leu Val Asn Ala Leu Ala Lys Gln Val 200 Met Asn Leu Leu Val Pro Ser Met Pro Arg Trp Pro Asn 210 215 <210> 717 <211> 195 <212> PRT <213> Homo sapiens Thr His Pro Asn Gln Ser Gln Ile Gln Thr Pro Ser Ser Leu Ile Pro Pro Gly Met Thr Leu Ile Ser Gln Met Phe Leu His Gly Glu Arg Asn

Asn Gly Gly Phe Asp Leu Ser Asp Ala Leu Pro Asp Asn Glu Asn Lys

Lys Pro Thr Ala Ile Pro Lys Lys Pro Ser Ala Gly Asp Asp Phe Asp

40

55

743

Leu Gly Asp Ala Val Val Asp Gly Glu Asn Asp Asp Pro Arg Pro Pro 65 70 75 80

Asn Pro Pro Lys Pro Met Pro Asn Pro Asn Pro Asn His Pro Ser Ser 85 90 95

Ser Gly Ser Phe Ser Asp Ala Asp Leu Ala Asp Gly Val Ser Gly Gly
100 105 110

Glu Gly Lys Gly Gly Ser Asp Gly Gly Gly Ser His Arg Lys Glu Gly
115 120 125

Glu Glu Ala Asp Ala Pro Gly Val Ile Pro Gly Ile Val Gly Ala Val 130 135 140

Val Val Ala Val Ala Gly Ala Ile Ser Ser Phe Ile Ala Tyr Gln Lys 145 155 160

Lys Lys Leu Cys Phe Lys Glu Asn Ala Glu Gln Gly Glu Val Asp Met 165 170 175

Glu Ser His Arg Asn Ala Asn Ala Glu Pro Ala Val Gln Arg Thr Leu 180 185 190

Leu Glu Lys 195

<210> 718

<211> 185

<212> PRT

<213> Homo sapiens

<400> 718

Ser Asp Arg Pro Thr Met Ala Pro Gly Val Ala Arg Gly Pro Thr Pro 1 5 10 15

Tyr Trp Arg Leu Arg Leu Gly Gly Ala Ala Leu Leu Leu Leu Leu Ile 20 25 30

Pro Val Ala Ala Ala Gln Glu Pro Pro Gly Ala Ala Cys Ser Gln Asn 35 40 45

Thr Asn Lys Thr Cys Glu Glu Cys Leu Lys Asn Val Ser Cys Leu Trp 50 60

Cys Asn Thr Asn Lys Ala Cys Leu Asp Tyr Pro Val Thr Ser Val Leu 65 70 75 80

Pro Pro Ala Ser Leu Cys Lys Leu Ser Ser Ala Arg Trp Gly Val Cys

744

85 90 Trp Val Asn Phe Glu Ala Leu Ile Ile Thr Met Ser Val Val Gly Gly 105 Thr Leu Leu Gly Ile Ala Ile Cys Cys Cys Cys Cys Arg Arg 120 Lys Arg Ser Arg Lys Pro Asp Arg Ser Glu Glu Lys Ala Met Arg Glu Arg Glu Glu Arg Arg Ile Arg Gln Glu Glu Arg Arg Ala Glu Met Lys 150 155 Thr Arg His Asp Glu Ile Arg Lys Lys Tyr Gly Leu Phe Lys Glu Glu 165 170 Asn Pro Tyr Ala Arg Phe Glu Asn Asn 180 <210> 719 <211> 567 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (57) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (85) <223> Xaa equals any of the naturally occurring L-amino acids <400> 719 Phe Arg Glu Leu Lys Asn Thr Val Ser Tyr Ser Gly Lys Arg Lys Gly Pro Asp Ser Leu Ser Asp Gly Pro Ala Cys Lys Arg Pro Ala Leu Leu 20 25

Leu Leu Gln Asn Ile Ile Asn Ile Lys Asn Glu Cys Ser Pro Val Ser

Met Glu Asp Val His Leu Asn Glu Xaa Lys Gln Glu Ser Ser Ala Asp

55

His Ser Gln Phe Leu Thr Pro Pro Gln Thr Pro Thr Pro Gly Glu Ser

65					70					75					80
Leu	Asn	Thr	Val	Xaa 85	Val	Ser	Trp	Leu	Asn 90	Pro	Val	Val	Val	Pro 95	Gln
Ser	Ser	Pro	Ala 100	Glu	Gln	Суѕ	Gln	Asp 105	Phe	His	Gly	Gly	Gln 110	Val	Phe
Ser	Pro	Pro 115	Gln	Lys	Cys	Gln	Pro 120	Phe	Gln	Val	Arg	Gly 125	Ser	Gln	Gln
Met	Ile 130	Asp	Gln	Ala	Ser	Leu 135	Tyr	Gln	Tyr	Ser	Pro 140	Gln	Asn	Gln	His
Val 145	Glu	Gln	Gln	Pro	His 150	Tyr	Thr	His	Lys	Pro 155	Thr	Leu	Glu	Tyr	Ser 160
Pro	Phe	Pro	Ile	Pro 165	Pro	Gln	Ser	Pro	Ala 170	Tyr	Glu	Pro	Asn	Leu 175	Phe
Asp	Gly	Pro	Glu 180	Ser	Gln	Phe	Cys	Pro 185	Asn	Gln	Ser	Leu	Val 190	Ser	Leu
Leu	Gly	Asp 195	Gln	Arg	Glu	Ser	Glu 200	Asn	Ile	Ala	Asn	Pro 205	Met	Gln	Thr
Ser	Ser 210	Ser	Val	Gln	Gln	Gln 215	Asn	Asp	Ala	His	Leu 220	His	Ser	Phe	Ser
Met 225	Met	Pro	Ser	Ser	Ala 230	Cys	Glu	Ala	Met	Val 235	Gly	His	Glu	Met	Ala 240
Ser	Asp	Ser	Ser	Asn 245	Thr	Ser	Leu	Pro	Phe 250	Ser	Asn	Met	Gly	Asn 255	Pro
Met	Asn	Thr	Thr 260	Gln	Leu	Gly	Lys	Ser 265	Leu	Phe	Gln	Trp	Gln 270	Val	Glu
Gln	Glu	Glu 275	Ser	Lys	Leu	Ala	Asn 280	Ile	Ser	Gln	Asp	Gln 285	Phe	Leu	Ser
Lys	Asp 290	Ala	Asp	Gly	Asp	Thr 295	Phe	Leu	His	Ile	Ala 300	Val	Ala	Gln	Gly
Arg 305	Arg	Ala	Leu	Ser	Tyr 310	Val	Leu	Ala	Arg	Lys 315	Met	Asn	Ala	Leu	His 320
				325					330				Gln	335	
/al	Ala	Ala	Asn	Gln	His	Leu	Ile	Val	Gln	Asp	Leu	Val	Asn	Ile	Gly

340 345 350 Ala Gln Val Asn Thr Thr Asp Cys Trp Gly Arg Thr Pro Leu His Val 360 Cys Ala Glu Lys Gly His Ser Gln Val Leu Gln Ala Ile Gln Lys Gly 375 Ala Val Gly Ser Asn Gln Phe Val Asp Leu Glu Ala Thr Asn Tyr Asp 395 Gly Leu Thr Pro Leu His Cys Ala Val Ile Ala His Asn Ala Val Val His Glu Leu Gln Arg Asn Gln Gln Pro His Ser Pro Glu Val Gln Glu 425 Leu Leu Lys Asn Lys Ser Leu Val Asp Thr Ile Lys Cys Leu Ile 440 Gln Met Gly Ala Ala Val Glu Ala Lys Asp Arg Lys Ser Gly Arg Thr 455 Ala Leu His Leu Ala Ala Glu Glu Ala Asn Leu Glu Leu Ile Arg Leu 475 Phe Leu Glu Leu Pro Ser Cys Leu Ser Phe Val Asn Ala Lys Ala Tyr Asn Gly Asn Thr Ala Leu His Val Ala Ala Ser Leu Gln Tyr Arg Leu 505 Thr Gln Leu Asp Ala Val Arg Leu Leu Met Arg Lys Gly Ala Asp Pro 520 Ser Thr Arg Asn Leu Glu Asn Glu Gln Pro Val His Leu Val Pro Asp 530 535 Gly Pro Val Gly Glu Gln Ile Arg Arg Ile Leu Lys Gly Lys Ser Ile 555 Gln Gln Arg Ala Pro Pro Tyr

<210> 720

<211> 299

<212> PRT

<213> Homo sapiens

747

<400> 720

Asp Pro Arg Val Arg Ser His Ser Arg Pro Thr Pro Leu Met Ala Asn 1 5 10

Arg Tyr Thr Met Asp Leu Thr Ala Ile Tyr Glu Ser Leu Leu Ser Leu 20 25 30

Ser Pro Asp Val Pro Val Pro Ser Asp His Gly Gly Thr Glu Ser Ser 35 40 45

Pro Gly Trp Gly Ser Ser Gly Pro Trp Ser Leu Ser Pro Ser Asp Ser 50 60

Ser Pro Ser Gly Val Thr Ser Arg Leu Pro Gly Arg Ser Thr Ser Leu 65 70 75 80

Val Glu Gly Arg Ser Cys Gly Trp Val Pro Pro Pro Gly Phe Ala 85 90 95

Pro Leu Ala Pro Arg Leu Gly Pro Glu Leu Ser Pro Ser Pro Thr Ser 100 105 110

Pro Thr Ala Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys 115 120 125

Arg Thr Phe Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln 130 135 140

Phe Ala His Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys 145 155 160

Tyr Lys Thr Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro 165 170 175

Thr Ala Leu Ala Ala Thr Ser Ser Thr Thr Leu Ala Lys Thr Trp Arg 180 185 190

Pro Arg Ala Thr Leu Leu Cys Phe Ala Arg Ala Ser Ala Ser Pro Ala 195 200 205

Cys Pro Leu Ala Ala Gly Pro His His His Gln Ala Trp Pro Ala 210 215 220

Leu Pro Cys Pro Pro Ala Pro Ser Arg Pro Pro Ala Pro His His 225 230 235 240

Leu Gly Thr Phe His Cys His Pro Leu Pro Ser Leu Leu Pro Leu Ala 245 250 250

Pro Pro Trp Leu Glu Glu Thr Pro Pro Gln Ser Val Ala Pro Pro Ala 260 265 270

Glu Gly His Ser Tyr Gln Arg Leu Gly Ala Leu Gly Trp Pro Gly Ser

Asp Pro Leu Cys Thr Val Pro Gly Ile Arg Pro 290 295

<210> 721

<211> 305

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 721

Arg Ser Gln Leu Leu Ala Leu Ala Cys Leu Pro Ala Pro Leu Leu Ala 1 5 10 15

Arg Ala Phe Ala Arg Pro Leu Leu Glu Asp Arg Gly Asp Ser Asp His 20 25 30

Ser Leu Trp Leu Gly Arg Glu Thr Glu Ala Ala Ala Gln Gly Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Gly Cys Ser Gly Gly Ser Arg Lys Met Ser Gly Glu Asp Glu Gln 50 60

Gln Glu Gln Thr Ile Ala Glu Asp Leu Val Val Thr Lys Tyr Lys Met 65 70 75 80

Gly Gly Asp Ile Ala Asn Arg Val Leu Arg Ser Leu Val Glu Ala Ser 85 90 95

Ser Ser Gly Val Ser Val Leu Ser Leu Cys Glu Lys Gly Asp Ala Met 100 105 110

Ile Met Glu Glu Thr Gly Lys Ile Phe Lys Lys Glu Lys Glu Met Lys
115 120 125

Lys Gly Ile Ala Phe Pro Thr Ser Ile Ser Val Asn Asn Cys Val Cys 130 135 140

His Phe Ser Pro Leu Lys Ser Asp Gln Asp Tyr Ile Leu Lys Glu Gly 145 150 155 160

Asp Leu Val Lys Ile Asp Leu Gly Val His Val Asp Gly Phe Ile Ala

749

165 170 175 Asn Val Ala His Thr Phe Val Val Asp Val Ala Gln Gly Thr Gln Val Thr Gly Arg Lys Ala Asp Val Ile Lys Ala Ala His Leu Cys Ala Glu 195 200 Ala Ala Leu Arg Leu Val Lys Pro Gly Asn Gln Asn Thr Gln Val Thr 215 Glu Ala Trp Asn Lys Val Ala His Ser Phe Asn Cys Thr Pro Ile Glu 225 230 235 Gly Met Leu Ser His Gln Leu Lys Gln His Val Ile Asp Gly Glu Lys 250 Thr Ile Ile Gln Asn Pro Thr Asp Gln Gln Lys Lys Asp His Glu Lys 265 Ala Glu Phe Glu Val His Glu Val Tyr Ala Val Asp Val Leu Val Ser 275 Ser Gly Glu Gly Lys Val Arg Arg Val Pro Xaa Leu Ala Lys Arg Gly Asp 305 <210> 722 <211> 394 <212> PRT <213> Homo sapiens <400> 722 Ala His Ala Ser Ala Ala Thr Thr Ser Ala Ala Asp Arg Gly Glu Met 5 Ala Ala Thr Glu Gly Val Gly Glu Ala Ala Gln Gly Gly Glu Pro Gly Gln Pro Ala Gln Pro Pro Pro Gln Pro His Pro Pro Pro Pro Gln Gln 40 Gln His Lys Glu Glu Met Ala Ala Glu Ala Gly Glu Ala Val Ala Ser Pro Met Asp Asp Gly Phe Val Ser Leu Asp Ser Pro Ser Tyr Val Leu 70

Tyr	Arg	Asp	Arg	Ala 85	Glu	Trp	Ala	Asp	Ile 90	Asp	Pro	Val	Pro	Gln 95	Asn
Asp	Gly	Pro	Asn 100	Pro	Val	Val	Gln	Ile 105	Ile	Tyr	Ser	Asp	Lys 110	Phe	Arg
Asp	Val	Tyr 115	Asp	туг	Phe	Arg	Ala 120	Val	Leu	Gln	Arg	Asp 125	Glu	Arg	Ser
Glu	Arg 130	Ala	Phe	Lys	Leu	Thr 135	Arg	Asp	Ala	Ile	Glu 140	Leu	Asn	Ala	Ala
Asn 145	Tyr	Thr	Val	Trp	His 150	Phe	Arg	Arg	Val	Leu 155	Leu	Lys	Ser	Leu	Gln 160
Lys	Asp	Leu	His	Glu 165	Glu	Met	Asn	Tyr	Ile 170	Thr	Ala	Ile	Ile	Glu 175	Glu
Gln	Pro	Lys	Asn 180	туг	Gln	Val	Trp	His 185	His	Arg	Arg	Val	Leu 190	Val	Glu
Trp	Leu	Arg 195	Asp	Pro	Ser	Gln	Glu 200	Leu	Glu	Phe	Ile	Ala 205	Asp	Ile	Leu
Asn	Gln 210	Asp	Ala	Lys	Asn	Tyr 215	His	Ala	Trp	Gln	His 220	Arg	Gln	Trp	Val
Ile 225	Gln	Glu	Phe	Lys	Leu 230	Trp	Asp	Asn	Glu	Leu 235	Gln	Tyr	Val	Asp	Gln 240
Leu	Leu	Lys	Glu	Asp 245	Val	Arg	Asn	Asn	Ser 250	Val	Trp	Asn	Gln	Arg 255	Tyr
Phe	Val	Ile	Ser 260	Asn	Thr	Thr	Gly	Туг 265	Asn	Asp	Arg	Ala	Val 270	Leu	Glu
Arg	Glu	Val 275	Gln	Tyr	Thr	Leu	Glu 280	Met	Ile	Lys	Leu	Val 285	Pro	His	Asn
Glu	Ser 290	Ala	Trp	Asn	Tyr	Leu 295	Lys	Gly	Ile	Leu	Gln 300	Asp	Arg	Gly	Leu
Ser 305	Lys	Tyr	Pro	Asn	Leu 310	Leu	Asn	Gln	Leu	Leu 315	Asp	Leu	Gln	Pro	Ser 320
His	Ser	Ser	Pro	Tyr 325	Leu	Ile	Ala	Phe	Leu 330	Val	Asp	Ile	Tyr	Glu 335	Asp
Met	Leu		Asn 340	Gln	Cys	Asp		Lys	Glu	Asp	Ile	Leu	Asn 350	Lys	Ala

7.51

Leu Glu Leu Cys Glu Ile Leu Ala Lys Glu Lys Asp Thr Ile Arg Lys 355 360 365

Glu Tyr Trp Arg Tyr Ile Gly Arg Ser Leu Gln Ser Lys His Ser Thr 370 375 380

Glu Asn Asp Ser Pro Thr Asn Val Gln Gln 385

<210> 723

<211> 337

<212> PRT

<213> Homo sapiens

<400> 723

Lys Thr Pro Lys Lys Ser Arg Val Arg Phe Ser Asn Ile Met Glu Ile
1 5 10 15

Arg Gln Leu Pro Ser Ser His Ala Leu Glu Ala Lys Leu Ser Arg Met
20 25 30

Ser Tyr Pro Val Lys Glu Gln Glu Ser Ile Leu Lys Thr Val Gly Lys 35 40 45

Leu Thr Ala Thr Gln Val Ala Lys Ile Ser Phe Phe Phe Cys Phe Val 50 55 60

Trp Phe Leu Ala Asn Leu Ser Tyr Gln Glu Ala Leu Ser Asp Thr Gln 65 70 75 80

Val Ala Ile Val Asn Ile Leu Ser Ser Thr Ser Gly Leu Phe Thr Leu 85 90 95

Ile Leu Ala Ala Val Phe Pro Ser Asn Ser Gly Asp Arg Phe Thr Leu $100 \hspace{1cm} 105 \hspace{1cm} 110$

Ser Lys Leu Leu Ala Val Ile Leu Ser Ile Gly Gly Val Val Leu Val 115 120 125

Asn Leu Ala Gly Ser Glu Lys Pro Ala Gly Arg Asp Thr Val Gly Ser 130 135 140

Ile Trp Ser Leu Ala Gly Ala Met Leu Tyr Ala Val Tyr Ile Val Met 145 150 155 160

Ile Lys Arg Lys Val Asp Arg Glu Asp Lys Leu Asp Ile Pro Met Phe 165 170 175

752

Phe Gly Phe Val Gly Leu Phe Asn Leu Leu Leu Trp Pro Gly Phe Phe Leu Leu His Tyr Thr Gly Phe Glu Asp Phe Glu Phe Pro Asn Lys Val Val Leu Met Cys Ile Ile Ile Asn Gly Leu Ile Gly Thr Val Leu 215 Ser Glu Phe Leu Trp Leu Trp Gly Cys Phe Leu Thr Ser Ser Leu Ile 235 230 Gly Thr Leu Ala Leu Ser Leu Thr Ile Pro Leu Ser Ile Ile Ala Asp 250 Met Cys Met Gln Lys Val Gln Phe Ser Trp Leu Phe Phe Ala Gly Ala 265 Ile Pro Val Phe Phe Ser Phe Phe Ile Val Thr Leu Leu Cys His Tyr 280 Asn Asn Trp Asp Pro Val Met Val Gly Ile Arg Arg Ile Phe Ala Phe 295 Ile Cys Arg Lys His Arg Ile Gln Arg Val Pro Glu Asp Ser Glu Gln 310 315 Cys Glu Ser Leu Ile Ser Met His Ser Val Ser Gln Glu Asp Gly Ala 325 330 Ser <210> 724 <211> 665 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 724

<220>
<221> SITE
<222> (298)

Ala 1	Pro	Leu	Asp	Gly 5	Gly	Ala	Ala	Ala	Ala 10	Ser	Val	Ala	Ser	Ser 15	Ile
Arg	Gln	Glu	Ala 20	Ser	Ala	Met	Gln	Ala 25	Pro	Arg	Glu	Leu	Ala 30	Val	Gly
Ile	Asp	Leu 35	Gly	Thr	Thr	Tyr	Ser 40	Cys	Val	Gly	Val	Phe 45	Gln	Gln	Gly
Arg	Val 50	Glu	Ile	Leu	Ala	Asn 55	Asp	Gln	Gly	Asn	Arg 60	Thr	Thr	Pro	Ser
Tyr 65	Val	Ala	Phe	Thr	Asp 70	Thr	Glu	Arg	Leu	Val 75	Gly	Asp	Ala	Ala	Lys 80
Ser	Gln	Ala	Ala	Leu 85	Asn	Pro	His	Asn	Thr 90	Val	Phe	Asp	Ala	Lys 95	Arg
Leu	Ile	Gly	Arg 100	Lys	Phe	Ala	Asp	Thr 105	Thr	Val	Gln	Ser	Asp 110	Met	Lys
His	Trp	Pro 115	Phe	Arg	Val	Val	Ser 120	Glu	Gly	Gly	Lys	Pro 125	Lys	Val	Arg
Val	Cys 130	Tyr	Arg	Gly	Glu	Asp 135	Lys	Thr	Phe	Tyr	Pro 140	Glu	Glu	Ile	Ser
Ser 145	Met	Val	Leu	Ser	Lys 150	Met	Lys	Glu	Thr	Ala 155	Glu	Ala	Tyr	Leu	Gly 160
Gln	Pro	Val	Lys	His 165	Ala	Val	Ile	Thr	Val 170	Pro	Ala	Tyr	Phe	Asn 175	Asp
Ser	Gln	Arg	Gln 180	Ala	Thr	Lys	Asp	Ala 185	Gly	Ala	Ile	Ala	Gly 190	Leu	Asn
Val	Leu	Arg 195	Ile	Ile	Asn	Glu	Pro 200	Thr	Ala	Ala	Ala	11e 205	Ala	туг	Gly
Leu	Asp 210	Arg	Arg	Gly		Gly 215	Xaa	Arg	Asn	Val	Leu 220	Ile	Phe	Asp	Leu
Gly 225	Gly	Gly	Thr	Phe	Asp 230	Val	Ser	Val	Leu	Ser 235	Ile	Asp	Ala	Gly	Val 240
Phe	Glu	Val	Lys	Ala 245	Thr	Ala	Gly	Asp	Thr 250	His	Leu	Gly	Gly	Glu 255	Asp
Phe	Asp	Asn	Arg 260	Leu	Val	Asn	His	Phe 265	Met	Glu	Glu	Phe	Arg 270	Arg	Lys

His	Glv	Lvs	Asp	Leu	Ser	Glv	Asn	Lvs	Arg	Ala	Leu	Arg	Arg	Leu	Arq
	•	275					280	-,-	3			285	-		_
Thr	Ala 290	Cys	Glu	Arg	Ala	Lys 295	Arg	Thr	Xaa	Ser	Ser 300	Ser	Thr	Gln	Ala
Thr 305	Leu	Glu	Ile	Asp	Ser 310	Leu	Phe	Glu	Gly	Val 315	Asp	Phe	Tyr	Thr	Ser 320
Ile	Thr	Arg	Ala	Arg 325	Phe	Glu	Glu	Leu	Cys 330	Ser	Asp	Leu	Phe	Arg 335	Ser
Thr	Leu	Glu	Pro 340	Val	Glu	Lys	Ala	Leu 345	Arg	Asp	Ala	Lys	Leu 350	Asp	Lys
Ala	Gln	11e 355	His	Asp	Val	Val	Leu 360	Val	Gly	Gly	Ser	Thr 365	Arg	Ile	Pro
Lys	Val 370	Gln	Lys	Leu	Leu	Gln 375	Asp	Phe	Phe	Asn	Gly 380	Lys	Glu	Leu	Asn
Lys 385	Ser	Ile	Asn	Pro	Asp 390	Glu	Ala	Val	Ala	Tyr 395	Gly	Ala	Ala	Val	Gln 400
Ala	Ala	Val	Leu	Met 405	Gly	Asp	Lys	Cys	Glu 410	Lys	Val	Gln	Asp	Leu 415	Leu
Leu	Leu	Asp	Val 420	Ala	Pro	Leu	Ser	Leu 425	Gly	Leu	Glu	Thr	Ala 430	Gly	Gly
Val	Met	Thr 435	Thr	Leu	Ile	Gln	Arg 440	Asn	Ala	Thr	Ile	Pro 445	Thr	Lys	Gln
Thr	Gln 450	Thr	Phe	Thr	Thr	Tyr 455	Ser	Asp	Asn	Gln	Pro 460	Gly	Val	Phe	Ile
Gln 465	Val	Tyr	Glu	Gly	Glu 470	Arg	Ala	Met	Thr	Lys 475	Asp	Asn	Asn	Leu	Leu 480
Gly	Arg	Phe	Glu	Leu 485	Ser	Gly	Ile	Pro	Pro 490	Ala	Pro	Arg	Gly	Val 495	Pro
Gln	Ile	Glu	Val 500	Thr	Phe	Asp	Ile	Asp 505	Ala	Asn	Gly	Ile	Leu 510	Ser	Val
Thr	Ala	Thr 515	Asp	Arg	Ser	Thr	Gly 520	Lys	Ala	Asn	Lys	Ile 525	Thr	Ile	Thr
Asn	Asp 530	Lys	Gly	Arg	Leu	Ser 535	Lys	Glu	Glu	Val	Glu 540	Arg	Met	Val	His

755

Glu Ala Glu Gln Tyr Lys Ala Glu Asp Glu Ala Gln Arg Asp Arg Val

Ala Ala Lys Asn Ser Leu Glu Ala His Val Phe His Val Lys Gly Ser 565 570 Leu Gln Glu Glu Ser Leu Arg Asp Lys Ile Pro Glu Glu Asp Arg Arg 580 585 Lys Met Gln Asp Lys Cys Arg Glu Val Leu Ala Trp Leu Glu His Asn 600 Gln Leu Ala Glu Lys Glu Glu Tyr Glu His Gln Lys Arg Glu Leu Glu 615 Gln Ile Cys Arg Pro Ile Phe Ser Arg Leu Tyr Gly Gly Pro Gly Val 630 635 Pro Gly Gly Ser Ser Cys Gly Thr Gln Ala Arg Gln Gly Asp Pro Ser Thr Gly Pro Ile Ile Glu Glu Val Asp <210> 725 <211> 73 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (26) <223> Xaa equals any of the naturally occurring L-amino acids <400> 725 Ala Arg Phe Ile Lys Leu Ile Phe Phe Ile Leu Val Val Lys Ser Ser 10 Leu Ile Ala Phe Cys Gln Leu Asp Phe Xaa Val Cys Val Ile Phe Lys 20 Gly Arg Met Thr Gly Gln Ile Ser Asn Lys Lys Cys Ile Glu Leu Glu Asn Ile Val Val Pro Ser Tyr Pro Trp Asp Ile Arg Ser Lys Thr Pro 50 55 60 Ser Glu Arg Leu Lys Pro Trp Ile Val 65 70

756

<210> 726 <211> 122 <212> PRT <213> Homo sapiens <400> 726 Thr Ala Ser Trp Ser Pro Ala Pro Val Pro Ser Ser Leu Glu Arg Leu Phe Ser Pro Asp Gly Thr Phe Pro Ser Arg Arg Phe Leu Gly Leu Trp Leu Phe Phe Ser Cys Ala Arg Leu Ile Gly His Leu Leu Ala Ser Ile Ser Val Val Leu Leu Pro His Phe Leu Phe Cys Cys Phe Ser Val Leu 55 Ser Lys Tyr Leu Leu Cys Ser Trp Leu Pro Phe Arg Arg Gln Val Phe Ser Phe Pro Leu Ala Leu Leu Leu Ile Trp Leu Leu Pro Thr Lys Ala 90 Cys Ser Val Arg Ile Ser Trp Phe Ser Thr Cys Gln Asn Leu Leu Gln 100 Pro Gln Phe Leu Gly Leu Asn Leu Tyr Val <210> 727 <211> 150 <212> PRT <213> Homo sapiens

Val Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe Thr Leu Val Gln Lys

Gly Thr Thr Thr Arg Asp Phe Thr Gln Leu Asn Glu Leu Gln Cys Arg

Phe Pro Arg Arg Leu Val Val Leu Gly Phe Pro Cys Asn Gln Phe Gly

His Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu Asn Ser Leu Lys Tyr

10

<400> 727

757

50 55 60 Cys Glu Val Asn Gly Gln Asn Glu His Pro Val Phe Ala Tyr Leu Lys 70 75 Asp Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe Ser Leu Met Thr Asp 90 Pro Lys Leu Ile Ile Trp Ser Pro Val Arg Arg Ser Asp Val Ala Trp 105 Asn Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly Glu Pro Phe Arg Arg 120 Tyr Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu Pro Asp Ile Lys Arg 135 140 130 Leu Leu Lys Val Ala Ile 145 <210> 728 <211> 192 <212> PRT <213> Homo sapiens <400> 728 Arg Ala Gly His Pro Leu His Pro Arg Glu Ala Pro Pro Ala Ala Arg 10 Ser His Thr Pro Lys Pro Leu Leu Met Val His Gly Trp Pro Gly Ser 20 . 25 Phe Tyr Glu Phe Tyr Lys Ile Ile Pro Leu Leu Thr Asp Pro Lys Asn His Gly Leu Ser Asp Glu His Val Phe Glu Val Ile Cys Pro Ser Ile 55 Pro Gly Tyr Gly Phe Ser Glu Ala Ser Ser Lys Lys Gly Phe Asn Ser 65 70 75 Val Ala Thr Ala Arg Ile Phe Tyr Lys Leu Met Leu Arg Leu Gly Phe Gln Glu Phe Tyr Ile Gln Gly Gly Asp Trp Gly Ser Leu Ile Cys Thr 100 105 Asn Met Ala Gln Leu Val Pro Ser His Val Lys Gly Leu His Leu Asn

120

125

115

. .

758

Gly Tyr Met His Ile Gln Cys Thr Lys Pro Asp Thr Val Ala Leu Leu 180 185 190

<210> 729 <211> 466 <212> PRT

<213> Homo sapiens

<400> 729

Glu His Gln Glu Ile Met Asn Asn Phe Gly Asn Glu Glu Phe Asp Cys
1 5 10 15

His Phe Leu Asp Glu Gly Phe Thr Ala Lys Asp Ile Leu Asp Gln Lys 20 25 30

Ile Asn Glu Val Ser Ser Ser Asp Asp Lys Asp Ala Phe Tyr Val Ala $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Asp Leu Gly Asp Ile Leu Lys Lys His Leu Arg Trp Leu Lys Ala Leu 50 60

Pro Arg Val Thr Pro Phe Tyr Ala Val Lys Cys Asn Asp Ser Lys Ala 65 70 75 80

Ile Val Lys Thr Leu Ala Ala Thr Gly Thr Gly Phe Asp Cys Ala Ser 85 90 95

Lys Thr Glu Ile Gln Leu Val Gln Ser Leu Gly Val Pro Pro Glu Arg

Ile Ile Tyr Ala Asn Pro Cys Lys Gln Val Ser Gln Ile Lys Tyr Ala 115 120 125

Ala Asn Asn Gly Val Gln Met Met Thr Phe Asp Ser Glu Val Glu Leu 130 135 140

145	Lys	Val	Ala	Arg	150	HIS	Pro	Lys	ATA	Lys 155	Leu	vai	Leu	Arg	160
Ala	Thr	Asp	Asp	ser 165	Lys	Ala	Val	Cys	Arg 170	Leu	Ser	Val	Lys	Phe 175	Gly
Ala	Thr	Leu	Arg 180	Thr	Ser	Arg	Leu	Leu 185	Leu	Glu	Arg	Ala	Lys 190	Glu	Leu
Asn	Ile	Asp 195	Val	Val	Gly	Val	Ser 200	Phe	His	Val	Gly	Ser 205	Gly	Cys	Thr
Asp	Pro 210	Glu	Thr	Phe	Val	Gln 215	Ala	Ile	Ser	Asp	Ala 220	Arg	Cys	Val	Phe
Asp 225	Met	Gly	Ala	Glu	Val 230	Gly	Phe	Ser	Met	Tyr 235	Leu	Leu	Asp	Ile	Gly 240
Gly	Gly	Phe	Pro	Gly 245	Ser	Glu	Asp	Val	Lys 250	Leu	Lys	Phe	Glu	Glu 255	Ile
Thr	Gly	Val	Ile 260	Asn	Pro	Ala	Leu	Asp 265	Lys	Tyr	Phe	Pro	Ser 270	Asp	Ser
		Arg 275					280	-	_	-	-	285			
	290	Leu				295					300				
305		Gly			310		_			315					320
		Val		325					330					335	
		Ala	340		_			345					350		
	-	Tyr 355	-				360	-	-			365	_	-	
	370	Ile				375	_				380				
385		Leu			390		_			395					400
Thr	Phe	Asn	GIÀ	Phe 405	Gin	Arg	Pro	Thr	11e 410	туг	Tyr	val	Met	Ser 415	Gly

760

Pro Ala Trp Gln Leu Met Gln Gln Phe Gln Asn Pro Asp Phe Pro Pro 420 425 430

Glu Val Glu Glu Gln Asp Ala Ser Thr Leu Pro Val Ser Cys Ala Trp 435 440 445

Glu Ser Gly Met Lys Arg His Arg Ala Ala Cys Ala Ser Ala Ser Ile 450 455 460

Asn Val 465

<210> 730

<211> 66

<212> PRT

<213> Homo sapiens

<400> 730

Trp Cys Leu Lys Val His Cys Asn Trp Gly Ala Leu Glu Thr Ala Cys
1 5 10 15

Ser His Thr Thr Asp Gly Ser Leu Asp Thr Ser Ser Leu Gln Ala Arg
20 25 30

Gln Ile Asn Ile His Asn Leu Ser Ala Phe Tyr Asp Ser Glu Leu Phe 35 40

Arg Met Asn Lys Phe Ser His Asp Leu Lys Arg Lys Met Ile Leu Gln 50 60

Gln Phe

65

<210> 731

<211> 208

<212> PRT

<213> Homo sapiens

<400> 731

Val Val Ala Met Ala Gln Val Leu Arg Gly Thr Val Thr Asp Phe Pro 1 5 10 15

Gly Phe Asp Glu Arg Ala Asp Ala Glu Thr Leu Arg Lys Ala Met Lys

Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg
35 40 45

761

Ser	Asn 50	Ala	Gln	Arg	Gln	Glu 55	Ile	Ser	Ala	Ala	Phe 60	Lys	Thr	Leu	Phe
Gly 65	Arg	Asp	Leu	Leu	Asp 70	Asp	Leu	Lys	Ser	Glu 75	Leu	Thr	Gly	Lys	Phe 80
Glu	Lys	Leu	Ile	Val 85	Ala	Leu	Met	Lys	Pro 90	Ser	Arg	Leu	туr	Asp 95	Ala
туг	Glu	Leu	Lys 100	His	Ala	Leu	Lys	Gly 105	Ala	Gly	Thr	Asn	Glu 110	Lys	Va]
Leu	Thr	Glu 115	Ile	Ile	Ala	Ser	Arg 120	Thr	Pro	Glu	Glu	Leu 125	Arg	Ala	Ile
Lys	Gln 130	Val	Туr	Glu	Glu	Glu 135	Tyr	Gly	Ser	Ser	Leu 140	Glu	Asp	Asp	Va]
Val 145	Gly	Asp	Thr	Ser	Gly 150	туr	Tyr	Gln	Arg	Met 155	Leu	Val	Val	Leu	Let 160
Gln	Ala	Asn	Arg	Asp 165	Pro	Asp	Ala	Gly	Ile 170	Asp	Glu	Ala	Gln	Val 175	Glu
Gln	Asp	Ala	Gln 180	Ala	Leu	Phe	Gln	Ala 185	Gly	Glu	Leu	Lys	Trp 190	Gly	Thi
Asp	Glu	Glu 195	Lys	Phe	Ile	Thr	Ile 200	Phe	Gly	Thr	Arg	Ser 205	Val	Leu	Ile

<210> 732

<211> 421

<212> PRT

<213> Homo sapiens

<400> 732

Val Gly Asp Cys Cys Val Pro Tyr Leu Asp Pro Glu Gly Thr Ser Leu 1 5 10 15

Leu Gly Trp Leu Ser Val Ser Leu Leu Ser Ser Gly Glu Ile Thr Ala 20 25 30

Ser Ser Ala Pro Arg Met Glu Pro Pro Gly Arg Arg Glu Cys Pro Phe

PIO	50	Trp	Arg	Pne	Pro	55 55	Leu	Leu	Leu	Ala	60	Met	vai	Leu	Leu
Leu 65	Tyr	Ser	Phe	Ser	Asp 70	Ala	Cys	Glu	Glu	Pro 75	Pro	Thr	Phe	Glu	Ala 80
Met	Glu	Leu	Ile	Gly 85	Lys	Pro	Lys	Pro	Tyr 90	туг	Glu	Ile	Gly	Glu 95	Arg
Val	Asp	Tyr	Lys 100	Суз	Lys	Lys	Gly	Tyr 105	Phe	Tyr	Ile	Pro	Pro 110	Leu	Ala
Thr	His	Thr 115	Ile	Cys	Asp	Arg	Asn 120	His	Thr	Trp	Leu	Pro 125	Val	Ser	Asp
Asp	Ala 130	Cys	Tyr	Arg	Glu	Thr 135	Cys	Pro	Tyr	Ile	Arg 140	Asp	Pro	Leu	Asn
Gly 145	Gln	Ala	Val	Pro	Ala 150	Asn	Gly	Thr	Tyr	Glu 155	Phe	Gly	туr	Gln	Met 160
His	Phe	Ile	Cys	Asn 165	Glu	Gly	Tyr	туr	Leu 170	Ile	Gly	Glu	Glu	Ile 175	Leu
Tyr	Cys	Glu	Leu 180	Lys	Gly	Ser	Val	Ala 185	Ile	Trp	Ser	Gly	Lys 190	Pro	Pro
Ile	Cys	Glu 195	Lys	Val	Leu	Cys	Thr 200	Pro	Pro	Pro	Lys	11e 205	Lys	Asn	Gly
Lys	His 210	Thr	Phe	Ser	Glu	Val 215	Glu	Val	Phe	Glu	Tyr 220	Leu	Asp	Ala	Val
225	-		_	~	Pro 230			-		235					240
Gly	Glu	Ser	Thr	11e 245	Tyr	Cys	Gly	Asp	Asn 250	Ser	Val	Trp	Ser	Arg 255	Ala
Ala	Pro	Glu	Cys 260	Lys	Val	Val	Lys	Cys 265	Arg	Phe	Pro	Val	Val 270	Glu	Asn
Gly	Lys	Gln 275	Ile	Ser	Gly	Phe	Gly 280	Lys	Lys	Phe	Tyr	Туг 285	Lys	Ala	Thr
Val	Met 290	Phe	Glu	Cys	Asp	Lys 295	Gly	Phe	Tyr	Leu	Asp 300	Gly	Ser	Asp	Thr
Ile 305	Val	Сув	Asp	Ser	Asn 310	Ser	Thr	Trp	Asp	Pro 315	Pro	Val	Pro	Lys	Cys 320

763

Leu Lys Val Ser Thr Ser Ser Thr Thr Lys Ser Pro Ala Ser Ser Ala 335

Ser Gly Pro Arg Pro Thr Tyr Lys Pro Pro Val Ser Asn Tyr Pro Gly 340

Tyr Pro Lys Pro Glu Glu Gly Ile Leu Asp Ser Leu Asp Val Trp Val 355 360 365

Ile Ala Val Ile Val Ile Ala Ile Val Val Gly Val Ala Val Ile Cys 370 375 380

Val Val Pro Tyr Arg Tyr Leu Gln Arg Arg Lys Lys Lys Gly Lys Ala 385 390 395 400

Asp Gly Gly Ala Glu Tyr Ala Thr Tyr Gln Thr Lys Ser Thr Thr Pro 405 410 415

Ala Glu Gln Arg Gly

<210> 733 <211> 105 <212> PRT

<213> Homo sapiens

<400> 733

Asp Ser Met Cys Pro Ala Ser Thr Pro Ser Val Leu Ser Ser Glu Gln 1 5 10 15

Glu Phe Gln Met Phe Pro Lys Ser Arg Leu Ser Ser Val Ser Val Thr 20 25 30

Tyr Cys Ser Val Ser Gln Asp Phe Pro Gly Ser Asn Leu Asn Leu Leu 35 40

Thr Asn Asn Ser Gly Thr Glu Trp Glu Ala His Pro Asp Gln Leu Leu 50 60

Arg Gly Pro Arg Lys Gly Arg Ile Glu Asn Val Gln Glu Ser Gly Gln 65 70 75 80

Glu Ala Val Ala Leu Leu His Pro Lys Pro Arg Leu Leu Thr Arg Leu 85 90 95

Pro Pro Leu Trp Gln Gln Arg His Ser 100 105

764

<210> 734 <211> 76

<212> PRT

<213> Homo sapiens

<400> 734

Tyr Pro Ser Val Thr Ser Gly Thr Phe Arg Arg Lys Pro Asn Ser Ser 1 5 10 15

Val Trp Cys Thr Arg Ser Ser Asp Val Phe Pro Pro Pro Asn Val Leu 20 25 30

Val Lys Gln Thr Tyr Thr Ser Ser Glu Ala Thr Phe Gly Gln Ala Ser 35 40 45

Arg Leu Gly Lys Cys Cys Thr Leu Cys Ile Lys Cys Ala Ser His Pro 50 55 60

Ser Pro Leu Gly Lys Phe Leu Cys Ile Leu Gln Ala 65 70 75

<210> 735

<211> 72

<212> PRT

<213> Homo sapiens

<400> 735

Asn Thr Ser Ile Asp Phe Ile Arg Val Phe Cys Gln Ser Arg Leu Phe 1 5 10 15

Ser Asp Ser Ser Pro Pro Phe Leu Arg Thr Leu Asn Asn Ala Val Val 20 25 30

Leu Ala Leu Ser Arg Lys Glu Lys Val Lys Pro Leu Phe Gly Gly Asn 35 40

Ile Gly Leu Asn Ser Asp Cys Pro Phe Leu Ala Gly Pro Leu Thr Asn 50 55 60

His Pro Ile Phe Phe Val Phe Leu 65 70

· <210> 736

<211> 412

<212> PRT

<213> Homo sapiens

765

PCT/US00/05918

	۸. م .														
	0> 7; Ala		Met	Leu 5	Arg	Ala	Ala	Ala	Arg 10	Phe	Gly	Pro	Arg	Leu 15	Gly
Arg	Arg	Leu	Leu 20	Ser	Ala	Ala	Ala	Thr 25	Gln	Ala	Val	Pro	Ala 30	Pro	Asn
Gln	Gln	Pro 35	Glu	Val	Phe	Cys	Asn 40	Gln	Ile	Phe	Ile	Asn 45	Asn	Glu	Trp
His	Asp 50	Ala	Val	Ser	Arg	Lys 55	Thr	Phe	Pro	Thr	Val 60	Asn	Pro	Ser	Thr
Gly 65	Glu	Val	Ile	Суѕ	Gln 70	Val	Ala	Glu	Gly	Asp 75	Lys	Glu	Asp	Val	Asp 80
Lys	Ala	Val	Lys	Ala 85	Ala	Arg	Ala	Ala	Phe 90	Gln	Leu	Gly	Ser	Pro 95	Trp
Arg	Arg	Met	Asp 100	Ala	Ser	His	Arg	Gly 105	Arg	Leu	Leu	Asn	Arg 110	Leu	Ala
Asp	Leu	Ile 115	Glu	Arg	Asp	Arg	Thr 120	Tyr	Leu	Ala	Ala	Leu 125	Glu	Thr	Leu
Asp	Asn 130	Gly	Lys	Pro	Tyr	Val 135	Ile	Ser	туг	Leu	Val 140	Asp	Leu	Asp	Met
Val 145	Leu	Lys	Cys	Leu	Arg 150	Tyr	Tyr	Ala	Gly	Trp 155	Ala	Asp	Lys	Tyr	His 160
Gly	Lys	Thr	Ile	Pro 165	Ile	Asp	Gly	Asp	Phe 170	Phe	Ser	Tyr	Thr	Arg 175	His
Glu	Pro	Val	Gly 180	Val	Cys	Gly	Gln	Ile 185	Ile	Pro	Trp	Asn	Phe 190	Pro	Leu
Leu	Met	Gln 195	Ala	Trp	Lys	Leu	Gly 200	Pro	Ala	Leu	Ala	Thr 205	Gly	Asn,	Val
Val	Val 210	Met	Lys	Val	Ala	Glu 215	Gln	Thr	Pro	Leu	Thr 220	Ala	Leu	Tyr	Val
Ala 225	Asn	Leu	Ile	Lys	Glu 230	Ala	Gly	Phe	Pro	Pro 235	Gly	Val	Val	Asn	Ile 240
Val	Pro	Gly	Phe	Gly 245	Pro	Thr	Ala	Gly	Ala 250	Ala	Ile	Ala	Ser	His 255	Glu
Asp	Val	Asp	Lvs	Val	Ala	Phe	Thr	Glv	Ser	Thr	Glu	Ile	Glv	Ara	Val

766

			260					265					270		
Ile	Gln	Val 275	Ala	Ala	Gly	Ser	Ser 280	Asn	Leu	Lys	Arg	Val 285	Thr	Leu	Glu
Leu	Gly 290	Gly	Lys	Ser	Pro	Asn 295	Ile	Ile	Met	Ser	Asp 300	Ala	Asp	Met	Asp
Trp 305	Ala	Val	Glu	Gln	Ala 310	His	Phe	Ala	Leu	Phe 315	Phe	Asn	Gln	Gly	Glr 320
Суз	Суѕ	Cys	Ala	Gly 325	Ser	Arg	Thr	Phe	Val 330	Gln	Glu	Asp	Ile	Tyr 335	Asp
Glu	Phe	Val	Glu 340	Arg	Ser	Val	Ala	Arg 345	Ala	Lys	Ser	Arg	Val 350	Val	Gly
Asn	Pro	Phe 355	Asp	Ser	Lys	Thr	Glu 360	Gln	Gly	Pro	Gln	Trp 365	Met	Lys	Leu
Ser	Leu 370	Arg	Arg	Ser	Ser	Ala 375	Thr	Ser	Thr	Arg	Gly 380	Ser	Lys	Arg	Gly
Arg 385	Ser	Суз	Суз	Val	Val 390	Gly	Ala	Leu	Leu	Leu 395	Thr	Val	Val	Thr	Ser 400
Ser	Ser	Pro	Leu	Cys 405	Leu	Glu	Met	Cys	Arg 410	Met	Ala				
)> 73 l> 27														
	2> PF														
<213	3> нс	omo s	sapie	ens											
)> 73 Glv		Ser	Val	Leu	Ara	Asn	Leu	Val	Leu	Ile	Thr	Val	Phe	Ala
1	•			5					10					15	
Val	Leu	Ser	Trp 20	Phe	Leu	Leu	Val	Leu 25	Thr	Val	Cys	Phe	Leu 30	Leu	Lys
Ala	Cys	Arg 35	Ala	Ser	Leu	Pro	Cys 40	Ser	Val	Gly	Val	Trp 45	Gln	Val	Thr
Asp	Gly 50	Glu	Asp	Ser	Cys	His 55	Arg	Ile	Ser	Asn	Thr	Ile	Val	Phe	Leu

His Val Leu Ser Trp Gly Cys Gly Gln Val Gly Val Gly Lys Glu Glu 65 70 75 80

767

Ala Leu Arg Ser Gly Gly Phe Phe Phe Ser Ser Pro Tyr Pro Val Ser 85 90 Leu Pro Val Phe Leu Pro Leu Arg Gln Ala Gln Ser Val Phe Pro Gly 105 Ala Gln Arg Ser Pro Arg Leu Leu Pro Arg Thr Pro Pro Arg Ala Glu 120 Pro Ser Ala Glu Val Leu Ala Trp Ser Thr Leu Ile Pro Arg Phe Phe 135 Ser Lys Thr Arg Pro Val Pro Phe Ser Thr Ala Ala Ser Gln Gln Arg 150 155 Ala Pro Gly Ser Pro Arg Ser Gln Leu Trp Leu Trp Thr Thr Trp Leu 170 Arg Pro Leu Gly Leu Gln Ser Leu His Trp Val Tyr Leu Gly Leu Ile 185 His Ser Trp Ser Gln Gly Trp Gly Phe Thr Cys Glu His Gln Thr Asp 200 Leu Leu Ala Ser Arg Ala Val Asp Ser Leu Met Lys Ala Leu Val Arg Arg Lys His Ser Val Leu Arg Leu Leu Cys Asn Arg Phe Val Ile Met Ser His Glu Lys Ser Asn Glu Leu Val Leu Leu Ile Val Thr Val Met 245 250 Arg Ser Leu Thr Tyr Asn Ile Ala Val Val Ala Ala Trp Phe Asn Gly 265 Cys Ile Arg 275 <210> 738 <211> 186

<212> PRT

<213> Homo sapiens

768

Tyr Ile Tyr Ala Ile Gly Asp Ile Leu Glu Asp Lys Val Glu Leu Thr 25 Pro Val Ala Ile Gln Ala Gly Arg Leu Leu Ala Gln Arg Leu Tyr Ala 40 Gly Ser Thr Val Lys Cys Asp Tyr Glu Asn Val Pro Thr Thr Val Phe Thr Pro Leu Glu Tyr Gly Ala Cys Gly Leu Ser Glu Glu Lys Ala Val 70 75 Glu Lys Phe Gly Glu Glu Asn Ile Glu Val Tyr His Ser Tyr Phe Trp 85 90 Pro Leu Glu Trp Thr Ile Pro Ser Arg Asp Asn Asn Lys Cys Tyr Ala Lys Ile Ile Cys Asn Thr Lys Asp Asn Glu Arg Val Val Gly Phe His 120 Val Leu Gly Pro Asn Ala Gly Glu Val Thr Gln Gly Phe Ala Ala Ala 130 135 Leu Lys Cys Gly Leu Thr Lys Lys Gln Leu Asp Ser Thr Ile Gly Ile 150 155 His Pro Val Cys Ala Glu Val Phe Thr Thr Leu Ser Val Thr Lys Arg Ser Gly Ala Ser Ile Leu Gln Ala Gly Cys 180 185 <210> 739

<211> 158

<212> PRT

<213> Homo sapiens

<400> 739

Lys Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg

Val Arg Thr Val Leu Cys Glu Leu Ile Asn Ala Leu Tyr Pro Glu Gly 20 25

Gln Ala Pro Val Lys Lys Ile Gln Ala Ser Thr Met Ala Phe Lys Gln

Met Glu Gln Ile Ser Gln Phe Leu Gln Ala Ala Glu Arg Tyr Gly Ile

769

50 55 60 Asn Thr Thr Asp Ile Phe Gln Thr Val Asp Leu Trp Glu Gly Lys Asn 70 75 Met Ala Cys Val Gln Arg Thr Leu Met Asn Leu Gly Gly Leu Ala Val 90 Ala Arg Asp Asp Gly Leu Phe Ser Gly Asp Pro Asn Trp Phe Pro Lys Lys Ser Lys Glu Asn Pro Arg Asn Phe Ser Asp Asn Gln Leu Gln Glu Gly Lys Asn Val Ile Gly Leu Gln Met Gly Thr Asn Arg Gly Ala Ser . 130 135 Gln Ala Gly Met Thr Gly Tyr Gly Met Pro Arg Gln Ile Leu 150 <210> 740 <211> 47 <212> PRT <213> Homo sapiens <400> 740 Asp Gln Glu Gly Glu Asn Pro Thr Trp Lys Asp Phe Cys Phe His Cys Leu Tyr Asp Val Ser His Ser Tyr Thr Tyr Lys Ser Leu Thr Arg 20 . 25 Gly Pro Leu Asn Cys Leu Val Phe Cys Glu Lys Gln Ile Phe Thr 40 <210> 741 <211> 212 <212> PRT <213> Homo sapiens <400> 741 Ala Gly Asp Ala Arg Cys Pro Pro Thr Pro Ala Pro Trp Pro Tyr Pro

His Leu His Pro His Pro Arg Ile Ala Ile Phe Arg Gly Gly Leu Gly

25

30

770

Gly Gly Val Arg Cys Phe Arg Ala Thr Glu Leu Lys His Lys Asp Pro Ser Pro Ala His Pro Ala Gln Pro Gln Leu Thr Ser Met Pro Arg Glu Lys Leu Pro Pro Pro Leu Pro Pro Pro Pro Thr Gln Ala Lys Ala Arg 70 65 75 Ala Gly Leu Arg Val Ser Pro Ala Pro Ser Leu Thr Pro Leu Pro Pro 90 85 Lys Thr Arq Leu Ser Ser Gln Thr Ser Leu Arg Ser Leu Ala Asn Pro 105 Leu Ala Pro Lys Glu Lys Asp Pro Gly Pro Ser Pro Ile Thr Pro Lys 120 Arg Gly Ser Pro Ser Ser Gly Leu Glu Pro Leu Val Pro Pro Ser Val 135 Cys Pro Arg Gly Pro Leu Pro Arg Trp Pro Leu Gly Ile Lys Ala Trp 145 150 Ala Ala Leu Arg Glu Gly Gly Arg Gly Arg Gly Trp Ser Gly Cys Ala 170 Ile Gly Val Ser Gly Ser Phe Ser Ala Arg Val Gly Val Val Glu Trp 180 Gly Arg Glu Ala Ser Arg Ala Pro Glu Gly Ser Gly Arg Asp Glu Asn 195 200 Gln Leu Phe Thr 210

<210> 742

<211> 55

<212> PRT

<213> Homo sapiens

<400> 742

His Phe Gly Arg Pro Arg Gln Val Asp His Leu Arg Ser Gly Asp Gln 1 5 10 15

Pro Gly Gln His Gly Glu Thr Pro Ser Leu Leu Lys Ile Gln Lys Leu 20 25 30

Ala Gly Asn Arg Leu Asn Leu Gly Gly Gly Ser Ser Glu Pro Arg

771

35 40 45

Ser Trp His Cys Thr Pro Thr 50 55

<210> 743

<211> 188

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 743

Pro Thr Arg Leu Arg Lys Arg Pro Ser Ser Gln Thr Asn Pro Ser Pro 1 5 10 15

Ser Ser Ser Arg Val Arg Asp Pro Val Glu Arg Arg Ala Asn Ala 20 25 30

Thr Gly Ala His Leu Asp Lys Leu Asp Gln Gly Arg Leu Val Asp Leu 35 40 45

Val Asn Ala Ser Phe Gly Lys Lys Leu Arg Asp Asp Tyr Leu Ala Ser 50 60

Leu Arg Pro Arg Leu His Ser Ile Tyr Val Ser Glu Gly Tyr Asn Ala 65 70 75 80

Ala Ala Ile Leu Thr Met Glu Pro Val Leu Gly Gly Thr Pro Tyr Leu 85 90 95

Asp Lys Phe Val Val Ser Ser Xaa Arg Gln Gly Gln Gly Ser Gly Gln 100 105 110

Met Leu Trp Glu Cys Leu Arg Arg Asp Leu Gln Thr Leu Phe Trp Arg 115 120 125

Ser Arg Val Thr Asn Pro Ile Asn Pro Trp Tyr Phe Lys His Ser Asp 130 135 140

Gly Ser Phe Ser Asn Lys Gln Trp Ile Phe Phe Trp Phe Gly Leu Ala 145 150 155 160

Asp Ile Arg Asp Ser Tyr Glu Leu Val Asn His Ala Lys Gly Leu Pro 165 170 175

772

Asp Ser Phe His Lys Pro Ala Ser Asp Pro Gly Ser 180 185

<210> 744

<211> 128

<212> PRT

<213> Homo sapiens

<400> 744

Met Phe Pro Ile Tyr Ser Arg Gly Ser Tyr Gly Gly Gly Asp Gly Gly 1 5 10 15

Tyr Asn Gly Phe Gly Gly Asp Gly Gly Asn Tyr Gly Gly Gly Pro Gly 20 25 30

Tyr Ser Ser Arg Gly Gly Tyr Gly Gly Gly Gly Pro Gly Tyr Gly Asn 35 40 45

Gln Gly Gly Gly Gly Gly Gly Gly Gly Tyr Asn Glu
50 55 60

Gly Gly Asn Phe Gly Gly Gly Asn Tyr Gly Gly Gly Asn Tyr Asn 65 70 75 80

Asp Phe Gly Asn Tyr Ser Gly Gln Gln Gln Ser Asn Tyr Gly Pro Met $85 \hspace{1cm} 90 \hspace{1cm} 95$

Lys Gly Gly Ser Phe Gly Gly Arg Ser Ser Gly Ser Pro Tyr Gly Gly 100 105 110

Gly Tyr Gly Ser Gly Gly Ser Gly Gly Tyr Gly Ser Arg Arg Phe 115 120 125

<210> 745

<211> 241

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221	i> si	ITE													
<222	?> (3	34)													
<223	3> Xa	aa e	quals	any	y of	the	natu	ırall	Ly o	ccuri	ring	L-ar	nino	acio	is
<220)>														
<221	l> s1	ITE													
<222	?> (3	39)													
<223	3> Xa	aa e	quals	any	y of	the	nati	ırall	Ly o	cur	ring	L-ar	nino	acio	is
<220)>														
<221	l> si	[TE													
<222	?> (4	10)													
<223	3> Xa	aa e	quals	s any	y of	the	nati	ırall	Ly o	ccuri	ring	L-ar	nino	acio	is
<400)> 74	15													
Glu	Ser	Arg	Glu	Gln	Ile	Leu	Pro	Val	Thr	Ser	Gly	Phe	Glu	Gly	Val
1				5					10					15	
Pro	Glv	Phe	Lys	Leu	Glu	Ser	Pro	Leu	Ser	Val	Pro	Lvs	Arq	Xaa	Leu
	1		20					25					30		
Arg	Xaa	Ser	Phe	His	Pro	Xaa	Xaa	Lys	Thr	Ser	Phe	Trp	Met	Leu	Cys
_		35					40					45			
Leu	Arg	Thr	Ser	Leu	Val	His	Lys	Met	Leu	His	Leu	Leu	Lys	Phe	Glu
	50					55					60				
Asp	Ala	Lys	Leu	Ala	Ala	Ala	Ile	Ser	Glu	Val	Val	Ser	Gln	Thr	Pro
65					70					75					80
													_		_
Ala	Ser	Thr	Thr		Ala	Gly	Ala	Pro		Arg	Asp	Thr	Ser		Ser
				85					90					95	
_	_	_	_		_		_			•		•	a	•	0 1
Asp	Lys	Asp	Leu	Asp	Asp	ATA	Leu		гÀг	Leu	ser	Asp		Leu	GIY
			100					105					110		
Cl n	7 ~ ~	C1.	Pro	N c m	Dra	n c n	Cl.	N.c.n	Tue	Pro	Mot	Glu	Acn	T.ve	U a 1
GIII	Arg	115	PIO	Ash	PIO	Asp	120	ASII	nys	FIU	Mec	125	vəb	Буз	Val
		113					120					123			
T.vs	Glu	Lvs	Ala	T.vs	Ala	Glu	His	Ara	Asp	Lvs	Leu	Glv	Glu	Ara	Asp
2,5	130	D _f S	1114	2,5		135		**** 9		_,_	140	0-1		•••	
	-50														
Asp	Thr	Tle	Pro	Pro	Glu	Tvr	Ara	His	Leu	Leu	Asp	Asp	Asn	Glv	Gln
145					150	-1-	9			155				1	160
αzA	Lys	Pro	Val	Lys	Pro	Pro	Thr	Lys	Lys	Ser	Glu	Asp	Ser	Lys	Lys
				165				4	170			- 2		175	•
Pro	Ala	Asp	Asp	Gln	Asp	Pro	Ile	Asp	Ala	Leu	Ser	Gly	Asp	Leu	Asp
		-	100		_			105					100		

774

Ser Cys Pro Ser Thr Thr Glu Thr Ser Gln Asn Thr Ala Lys Asp Lys 200 Cys Lys Lys Ala Ala Ser Ser Ser Lys Ala Pro Lys Asn Gly Gly Lys 215 Ala Lys Asp Ser Ala Lys Thr Thr Glu Glu Thr Ser Lys Pro Lys Asp 230 235 Asp <210> 746 <211> 186 <212> PRT <213> Homo sapiens <400> 746 Gln Ser Arg Gly Pro Gly Pro Val Thr Asp Gly Arg Gly Arg Glu Arg Gly Gly Gly Asp Thr Met Ser Ser Pro Ser Pro Gly Lys Arg Arg Met 25 20 Asp Thr Asp Val Val Lys Leu Ile Glu Ser Lys His Glu Val Thr Ile Leu Gly Gly Leu Asn Glu Phe Val Val Lys Phe Tyr Gly Pro Gln Gly 50 Thr Pro Tyr Glu Gly Gly Val Trp Lys Val Arg Val Asp Leu Pro Asp 70 Lys Tyr Pro Phe Lys Ser Pro Ser Ile Gly Phe Met Asn Lys Ile Phe 90 His Pro Asn Ile Asp Glu Ala Ser Gly Thr Val Cys Leu Asp Val Ile 105 Asn Gln Thr Trp Thr Ala Leu Tyr Asp Leu Thr Asn Ile Phe Glu Ser 120 Phe Leu Pro Gln Leu Leu Ala Tyr Pro Asn Pro Ile Asp Pro Leu Asn 130 135

Gly Asp Ala Ala Met Tyr Leu His Arg Pro Glu Glu Tyr Lys Gln

Lys Ile Lys Glu Tyr Ile Gln Lys Tyr Ala Thr Glu Glu Phe Phe Leu

775

165 170 175

<210> 747

<211> 40

<212> PRT

<213> Homo sapiens

<400> 747

Leu Cys Cys Phe Lys Tyr Leu Gly Asp Cys Phe Ile Ile Ser Ser Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Lys Thr Phe Asn Phe Ala Ile Glu Thr Val Glu Leu Cys His Ala 20 25 30

Phe Ile Arg Ser Ser Ala Leu Cys 35 40

<210> 748

<211> 65

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 748

Gln Met Cys Leu Gln Gly Tyr Gly Xaa Ser Ile Thr Asn Phe His Val 1 5 10 15

Tyr Leu Glu Val Phe Leu Asn Gly Ile Pro Lys Ser Arg Ser Leu Lys 20 25 30

Met Pro Ile Lys Val Asn Asn Ile Tyr Leu Lys Arg Thr Leu Asn Met 35 40 45

Pro Ser Phe Leu Ile Arg Asn Ile Phe Glu Thr Trp Val Phe Val Asn 50 55 60

Asn

776

<210> 749 <211> 143 <212> PRT <213> Homo sapiens <400> 749 Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Ala Val 10 Arg Gln Ala Glu Met Leu Asp Asp Leu Met Glu Lys Arg Lys Glu Lys 25 Leu Asp Ser Val Ile Glu Phe Ser Ile Pro Asp Ser Leu Leu Ile Arg Arg Ile Thr Gly Arg Leu Ile His Pro Lys Ser Gly Arg Ser Tyr His 55 Glu Glu Phe Asn Pro Pro Lys Glu Pro Met Lys Asp Asp Ile Thr Gly 70 Glu Pro Leu Ile Arg Arg Ser Asp Asp Asn Glu Lys Ala Leu Lys Ile Arg Leu Gln Ala Tyr His Thr Gln Thr Thr Pro Leu Ile Glu Tyr Tyr 100 105 Arg Lys Arg Gly Ile His Ser Ala Ile Asp Ala Ser Gln Thr Pro Asp 120 Val Val Phe Ala Ser Ile Leu Ala Ala Phe Ser Lys Ala Thr Ser 130 135 <210> 750 <211> 136 <212> PRT <213> Homo sapiens

Thr Glu Leu Val Leu Ser Ile Pro Arg His Met Pro Ala Ala Tyr Ser

Arg Phe Leu Ser Trp Cys Leu Leu Ala Leu Gly Glu Glu Ala Lys Leu

Trp Leu Pro Ala Ser Arg Ala Lys Arg Val Arg Pro Trp Ile Glu Thr

10

777

Val Thr Ser Ile Ala Thr Pro Glu Arg Asn Asn Met Ala Val Lys Lys 55 Ser Arg Leu Lys Ser Lys Gln Lys Ala Gln Asp Thr Leu Gln Arg Val 70 75 Asn Gln Leu Lys Glu Glu Asn Glu Arg Leu Glu Ala Lys Ile Lys Leu 90 85 Leu Thr Lys Glu Leu Ser Val Leu Lys Asp Leu Phe Leu Glu His Ala 105 His Asn Leu Ala Asp Asn Val Gln Ser Ile Ser Thr Glu Asn Thr Thr 120 125 Ala Asp Gly Asp Asn Ala Gly Gln 130 135 <210> 751 <211> 885 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (306) <223> Xaa equals any of the naturally occurring L-amino acids <400> 751 Pro Xaa Val Xaa Ser Lys His Leu Lys Asp Ser Met Cys Asn Glu Phe 10 Ser Gln Ile Phe Gln Leu Cys Gln Phe Val Met Glu Asn Ser Gln Asn 20 25 Ala Pro Leu Val His Ala Thr Leu Glu Thr Leu Leu Arg Phe Leu Asn 40

Trp Ile Pro Leu Gly Tyr Ile Phe Glu Thr Lys Leu Ile Ser Thr Leu

	50					55					60				
Ile 65	Tyr	Lys	Phe	Leu	Asn 70	Val	Pro	Met	Phe	Arg 75	Asn	Val	Ser	Leu	Lys 80
Cys	Leu	Thr	Glu	Ile 85	Ala	Gly	Val	Ser	Val 90	Ser	Gln	Tyr	Glu	Glu 95	Gln
Phe	Val	Thr	Leu 100	Phe	Thr	Leu	Thr	Met 105	Met	Gln	Leu	Lys	Gln 110	Met	Leu
Pro	Leu	Asn 115	Thr	Asn	Ile	Arg	Leu 120	Ala	Tyr	Ser	Asn	Gly 125	Lys	Asp	Asp
Glu	Gln 130	Asn	Phe	Ile	Gln	Asn 135	Leu	Ser	Leu	Phe	Leu 140	Суз	Thr	Phe	Leu
Lys 145	Glu	His	Asp	Gln	Leu 150	Ile	Glu	Lys	Arg	Leu 155	Asn	Leu	Arg	Glu	Thr 160
Leu	Met	Glu	Ala	Leu 165	His	Tyr	Met	Leu	Leu 170	Val	Ser	Glu	Val	Glu 175	Glu
Thr	Glu	Ile	Phe 180	Lys	Ile	Cys	Leu	Glu 185	Tyr	Trp	Asn	His	Leu 190	Ala	Ala
Glu	Leu	Tyr 195	Arg	Glu	Ser	Pro	Phe 200	Ser	Thr	Ser	Ala	Ser 205	Pro	Leu	Leu
Ser	Gly 210	Ser	Gln	His	Phe	Asp 215	Val	Pro	Pro	Arg	Arg 220	Gln	Leu	Tyr	Leu
Pro 225	Met	Leu	Phe	Lys	Val 230	Arg	Leu	Leu	Met	Val 235	Ser	Arg	Met	Ala	Lys 240
Pro	Glu	Glu	Val	Leu 245	Val	Val	Glu	Asn	Asp 250	Gln	Gly	Glu	Val	Val 255	Arg
Glu	Phe	Met	Lys 260	Asp	Thr	Asp	Ser	Ile 265	Asn	Leu	Tyr	Lys	Asn 270	Met	Arg
Glu	Thr	Leu 275	Val	Tyr	Leu	Thr	His 280	Leu	Asp	Tyr	Val	Asp 285	Thr	Glu	Arg
Ile	Met 290	Thr	Glu	Lys	Leu	His 295	Asn	Gln	Val	Asn	Gly 300	Thr	Glu	Trp	Ser
Trp 305	Xaa	Asn	Leu	Asn	Thr 310	Leu	Cys	Trp	Ala	Ile 315	Gly	Ser	Ile	Ser	Gly 320
Ala	Met	His	Glu	Glu	Asp	Glu	Lys	Arg	Phe	Leu	Val	Thr	Val	Ile	Lys

				325					330					335	
Asp	Leu	Leu	Gly 340	Leu	Cys	Glu	Gln	Lys 345	Arg	Gly	Lys	Asp	Asn 350	Lys	Ala
Ile	Ile	Ala 355	Ser	Asn	Ile	Met	Tyr 360	Ile	Val	Gly	Gln	Tyr 365	Pro	Arg	Phe
Leu	Arg 370	Ala	His	Trp	Lys	Phe 375	Leu	Lys	Thr	Val	Val 380	Asn	Lys	Leu	Phe
Glu 385	Phe	Met	His	Glu	Thr 390	His	Asp	Gly	Val	Gln 395	Asp	Met	Ala	Суѕ	Asp 400
Thr	Phe	Ile	Lys	Ile 405	Ala	Gln	Lys	Cys	Arg 410	Arg	His	Phe	Val	Gln 415	Val
Gln	Val	Gly	Glu 420	Val	Met	Pro	Phe	Ile 425	Asp	Glu	Ile	Leu	Asn 430	Asn	Ile
Asn	Thr	Ile 435	Ile	Cys	Asp	Leu	Gln 440	Pro	Gln	Gln	Val	His 445	Thr	Phe	Tyr
Glu	Ala 450	Val	Gly	Tyr	Met	Ile 455	Gly	Ala	Gln	Thr	Asp 460	Gln	Thr	Val	Gln
Glu 465	His	Leu	Ile	Glu	Lys 470	туг	Met	Leu	Leu	Pro 475	Asn	Gln	Val	Trp	Asp 480
Ser	Ile	Ile	Gln	Gln 485	Ala	Thr	Lys	Asn	Val 490	Asp	Ile	Leu	Lys	Asp 495	Pro
Glu	Thr	Val	Lys 500	Gln	Leu	Gly	Ser	Ile 505	Leu	Lys	Thr	Asn	Val 510	Arg	Ala
Cys	Lys	Ala 515	Val	Gly	His	Pro	Phe 520	Val	Ile	Gln	Leu	Gly 525	Arg	Ile	Tyr
Leu	Asp 530	Met	Leu	Asn	Val	Tyr 535	Lys	Cys	Leu	Ser	Glu 540	Asn	Ile	Ser	Ala
Ala 545	Ile	Gln	Ala	Asn	Gly 550	Glu	Met	Val	Thr	Lys 555	Gln	Pro	Leu	Ile	Arg 560
Ser	Met	Arg	Thr	Val 565	Lys	Arg	Glu	Thr	Leu 570	Lys	Leu	Ile	Ser	Gly 575	Trp
Val	Ser	Arg	Ser 580	Asn	Asp	Pro	Gln	Met 585	Val	Ala	Glu	Asn	Phe 590	Val	Pro
Pro	T.e.v	T.Ou	Agr	Ala	Val	Len	Tle	Asn	Tur	Glr	Ara	Agn	Val	Pro	Δla

		595					600					605			
Ala	Arg 610	Glu	Pro	Glu	Val	Leu 615	Ser	Thr	Met	Ala	Ile 620	Ile	Val	Asn	Lys
Leu 625	Gly	Gly	His	Ile	Thr 630	Ala	Glu	Ile	Pro	Gln 635	Ile	Phe	Asp	Ala	Val
Phe	Glu	Суз	Thr	Leu 645	Asn	Met	Ile	Asn	Lys 650	Asp	Phe	Glu	Glu	Tyr 655	Pro
Glu	His	Arg	Thr 660	Asn	Phe	Phe	Leu	Leu 665	Leu	Gln	Ala	Val	Asn 670	Ser	His
Cys	Phe	Pro 675	Ala	Phe	Leu	Ala	Ile 680	Pro	Pro	Thr	Gln	Phe 685	Lys	Leu	Val
Leu	Asp 690	Ser	Ile	Ile	Trp	Ala 695	Phe	Lys	His	Thr	Met 700	Arg	Asn	Val	Ala
Asp 705	Thr	Gly	Leu	Gln	Ile 710	Leu	Phe	Thr	Leu	Leu 715	Gln	Asn	Val	Ala	Gln 720
Glu	Glu	Ala	Ala	Ala 725	Gln	Ser	Phe	Tyr	Gln 730	Thr	Tyr	Phe	Cys	Asp 735	Ile
Leu	Gln	His	Ile 740	Phe	Ser	Val	Val	Thr 745	Asp	Thr	Ser	His	Thr 750	Ala	Gly
Leu	Thr	Met 755	His	Ala	Ser	Ile	Leu 760	Ala	Tyr	Met	Phe	Asn 765	Leu	Val	Glu
Glu	Gly 770	Lys	Ile	Ser	Thr	Ser 775	Leu	Asn	Pro	Gly	Asn 780	Pro	Val	Asn	Asn
Gln 785	Ile	Phe	Leu	Gln	Glu 790	Tyr	Val	Ala	Asn	Leu 795	Leu	Lys	Ser	Ala	Phe
Pro	His	Leu	Gln	Asp 805	Ala	Gln	Val	Lys	Leu 810	Phe	Val	Thr	Gly	Leu 815	Phe
Ser	Leu	Asn	Gln 820	Asp	Ile	Pro	Ala	Phe 825	Lys	Glu	His	Leu	Arg 830	Asp	Phe
Leu	Val	Gln 835	Ile	Lys	Glu	Phe	Ala 840	Gly	Glu	Asp	Thr	Ser 845	Asp	Leu	Phe
Leu	Glu 850	Glu	Arg	Glu	Ile	Ala 855	Leu	Arg	Gln	Ala	Asp 860	Glu	Glu	Lys	His
T.vs	Ara	Gln	Met	Ser	Val	Pro	Glv	Tle	Phe	Asn	Pro	Hig	Glu	Tla	Pro

781

865 870 875 880

Glu Glu Met Cys Asp
885

<210> 752 <211> 209 <212> PRT <213> Homo sapiens

<400> 752

Val Thr Phe Gly Val Ile Thr Ser Ile Ile Ile Trp Ala Leu Ala Ile 1 5 10 15

Leu Ala Ser Met Pro Gly Leu Tyr Phe Ser Lys Thr Gln Trp Glu Phe 20 25 30

Thr His His Thr Cys Ser Leu His Phe Pro His Glu Ser Leu Arg Glu 35 40 45

Trp Lys Leu Phe Gln Ala Leu Lys Leu Asn Leu Phe Gly Leu Val Leu 50 60

Pro Leu Leu Val Met Ile Ile Cys Tyr Thr Gly Ile Ile Lys Ile Leu 65 70 75 80

Leu Arg Arg Pro Asn Glu Lys Lys Ser Lys Ala Val Arg Leu Ile Phe 85 90 95

Val Ile Met Ile Ile Phe Phe Leu Phe Trp Thr Pro Tyr Asn Leu Thr

Ile Leu Ile Ser Val Phe Gln Asp Phe Leu Phe Thr His Glu Cys Glu 115 120 125

Gln Ser Arg His Leu Asp Leu Ala Val Gln Val Thr Glu Val Ile Ala 130 135 140

Tyr Thr His Cys Cys Val Asn Pro Val Ile Tyr Ala Phe Val Gly Glu 145 150 155 160

Arg Phe Arg Lys Tyr Leu Arg Gln Leu Phe His Arg Arg Val Ala Val
165 170 175

His Leu Val Lys Trp Leu Pro Phe Leu Ser Val Asp Arg Leu Glu Arg 180 185 190

Val Ser Ser Thr Ser Pro Ser Thr Gly Glu His Glu Leu Ser Ala Gly
195 200 205

782

Phe

)> 7! l> 2:			•											
	2> PI														
\ 21.) - n	: Omc	sapi	2115											
<400)> 7	53													
Leu 1	Ser	Val	Ala	Ser 5	Leu	Ser	Phe	Leu	Pro 10	Asn	Ala	Ser	Ala	Glu 15	Asp
Thr	Met	Ser	Arg 20	Leu	Ser	Arg	Ser	Leu 25	Leu	Trp	Ala	Ala	Thr 30	Cys	Leu
Gly	Val	Leu 35	Cys	Val	Leu	Ser	Ala 40	Asp	Lys	Asn	Thr	Thr 45	Gln	His	Pro
Asn	Val 50	Thr	Thr	Leu	Ala	Pro 55	Ile	Ser	Asn	Val	Thr 60	Ser	Ala	Pro	Val
Thr 65	Ser	Leu	Pro	Leu	Val 70	Thr	Thr	Pro	Ala	Pro 75	Glu	Thr	Cys	Glu	Gly 80
Arg	Asn	Ser	Суз	Val 85	Ser	Cys	Phe	Asn	Val 90	Ser	Val	Val	Asn	Thr 95	Thr
Cys	Phe	Trp	Ile 100	Glu	Cys	Lys	Asp	Glu 105	Ser	туг	Суѕ	Ser	His 110	Asn	Ser
Thr	Val	Ser 115	Asp	Cys	Gln	Val	Gly 120	Asn	Thr	Thr	Asp	Phe 125	Суз	Ser	Val
Ser	Thr 130	Ala	Thr	Pro	Val	Pro 135	Thr	Ala	Asn	Ser	Thr 140	Ala	Lys	Pro	Thr
Val 145	Gln	Pro	Ser	Pro	Ser 150	Thr	Thr	Ser	Lys	Thr 155	Val	Thr	Thr	Ser	Gly 160
Thr	Thr	Asn	Asn	Thr 165	Val	Thr	Pro	Thr	Ser 170	Gln	Pro	Val	Arg	Lys 175	Ser
Thr	Phe	Asp	Ala 180	Ala	Ser	Phe	Ile	Gly 185	Gly	Ile	Val	Leu	Val 190	Leu	Gly
Val	Gln	Ala 195	Val	Ile	Phe	Phe	Leu 200	Tyr	Lys	Phe	Cys	Lys 205	Ser	Lys	Glu

Arg Asn Tyr His Thr Leu 210

<210> 754 <211> 363

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (231)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 754

. !

Pro Arg Pro Arg Glu Pro Gln Val Leu Ala Ala Gly Asp Val Arg Ser

Pro Ser Asp Pro Arg Arg Val Lys Ala Asn Leu Ser Glu Val Leu Val 20 25 30

Tyr Ser Val Leu Gly Val Asn Val Thr Ser Thr Glu Val Tyr Gly Ala 35 40 45

Phe Thr Cys Ser Ile Gln Asn Ile Ser Phe Ser Ser Phe Thr Leu Gln 50 60

Arg Ala Gly Pro Thr Ser His Val Ala Ala Val Leu Ala Ser Leu Leu 65 70 75 80

Val Leu Leu Ala Leu Leu Leu Ala Ala Leu Leu Tyr Val Lys Cys Arg 85 90 95

Leu Asn Val Leu Leu Trp Tyr Gln Asp Ala Tyr Gly Glu Val Glu Ile

Asn Asp Gly Lys Leu Tyr Asp Ala Tyr Val Ser Tyr Ser Asp Cys Pro 115 120 125

Glu Asp Arg Lys Phe Val Asn Phe Ile Leu Lys Pro Gln Leu Glu Arg 130 135 140

Arg Arg Gly Tyr Lys Leu Phe Leu Asp Asp Arg Asp Leu Leu Pro Arg 145 150 155 160

Ala Glu Pro Ser Ala Asp Leu Leu Val Asn Leu Ser Arg Cys Arg Arg 165 170 175

Leu Ile Val Val Leu Ser Asp Ala Phe Leu Ser Arg Ala Trp Cys Ser 180 185 190

784

His	Ser	Phe 195	Arg	Glu	Gly	Leu	Cys 200	Arg	Leu	Leu	Glu	Leu 205	Thr	Arg	Arg
Pro	Ile 210	Phe	Ile	Thr	Phe	Glu 215	Gly	Gln	Arg	Arg	Asp 220	Pro	Ala	His	Pro
Ala 225	Leu	Arg	Leu	Leu	Arg 230	Xaa	His	Arg	His	Leu 235	Val	Thr	Leu	Leu	Leu 240
Trp	Arg	Pro	Gly	Ser 245	Val	Thr	Pro	Ser	Ser 250	Asp	Phe	Trp	Lys	Glu 255	Val
Gln	Leu	Ala	Leu 260	Pro	Arg	Lys	Val	Arg 265	Tyr	Arg	Pro	Val	Glu 270	Gly	Asp
Pro	Gln	Thr 275	Gln	Leu	Gln	Asp	Asp 280	Lys	Asp	Pro	Met	Leu 285	Ile	Leu	Arg
Gly	Arg 290	Val	Pro	Glu	Gly	Arg 295	Ala	Leu	Asp	Ser	Glu 300	Val	Asp	Pro	Asp
Pro 305	Glu	Gly	Asp	Leu	Gly 310	Val	Arg	Gly	Pro	Val 315	Phe	Gly	Glu	Pro	Ser 320
Ala	Pro	Pro	His	Thr 325	Ser	Gly	Val	Ser	Leu 330	Gly	Glu	Ser	Arg	Ser 335	Ser
Glu	Val	Asp	Val 340	Ser	Asp	Leu	Gly	Ser 345	Arg	Asn	туг	Ser	Ala 350	Arg	Thr
Asp	Phe	Туг 355	Cys	Leu	Val	Ser	Lys 360	Asp	Asp	Met	÷				
)> 75														
	.> 23														
	!> PF !> Ho	omo s	apie	ens											
-400	. 76														

Pro Val Gln Pro Thr His Ala Pro Gly Thr Thr Ala Ala Ala His Asn

Thr Thr Arg Thr Ala Ala Pro Ala Ser Thr Val Pro Gly Pro Thr Leu

Ala Pro Gln Pro Ser Ser Val Lys Thr Gly Ile Tyr Gln Val Leu Asn 35 40 45

785

Gly Ser Arg Leu Cys Ile Lys Ala Glu Met Gly Ile Gln Leu Ile Val 55 Gln Asp Lys Glu Ser Val Phe Ser Pro Arg Arg Tyr Phe Asn Ile Asp 70 75 Pro Asn Ala Thr Gln Ala Ser Gly Asn Cys Gly Thr Arg Lys Ser Asn Leu Leu Leu Asn Phe Gln Gly Gly Phe Val Asn Leu Thr Phe Thr Lys Asp Glu Glu Ser Tyr Tyr Ile Ser Glu Val Gly Ala Tyr Leu Thr Val Ser Asp Pro Glu Thr Val Tyr Gln Gly Ile Lys His Ala Val Val Met 135 Phe Gln Thr Ala Val Gly His Ser Phe Lys Cys Val Ser Glu Gln Ser 150 155 Leu Gln Leu Ser Ala His Leu Gln Val Lys Thr Thr Asp Val Gln Leu Gln Ala Phe Asp Phe Glu Asp Asp His Phe Gly Asn Val Asp Glu Cys 185 Ser Ser Asp Tyr Thr Ile Val Leu Pro Val Ile Gly Ala Ile Val Val 195 Gly Leu Cys Leu Met Gly Met Gly Val Tyr Lys Ile Arg Leu Arg Cys Gln Ser Ser Gly Tyr Gln Arg Ile 225 230 <210> 756 <211> 128 <212> PRT <213> Homo sapiens

<400> 756

Lys Leu Leu Pro Val Val Ile Ile Ala Val Gly Val Phe Leu Phe Leu 1 5 10 15

Val Ala Phe Val Gly Cys Cys Gly Ala Cys Lys Glu Asn Tyr Cys Leu 20 25 30

Met Ile Thr Phe Ala Ile Phe Leu Ser Leu Ile Met Leu Val Glu Val

786

<210> 757

<211> 257

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 757

Glu Thr Arg Val Lys Thr Ser Leu Glu Leu Leu Arg Thr Gln Leu Glu
1 5 10 15

Pro Thr Gly Thr Val Gly Asn Thr Ile Met Thr Ser Gln Pro Val Pro 20 25 30

Asn Glu Thr Ile Ile Val Leu Pro Ser Asn Val Ile Asn Phe Ser Gln 35 40 45

Ala Glu Lys Pro Glu Pro Thr Asn Gln Gly Gln Asp Ser Leu Lys Lys 50 55 60

His Leu His Ala Glu Ile Lys Val Ile Gly Thr Ile Gln Ile Leu Cys 65 70 75 80

Gly Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe

787

Ser Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tyr 105 Pro Phe Ile Gly Pro Phe Phe Ile Ile Ser Gly Ser Leu Ser Ile Ala Thr Glu Lys Arg Leu Thr Lys Leu Leu Val His Ser Ser Leu Val 135 Gly Ser Ile Leu Ser Ala Leu Ser Ala Leu Val Gly Phe Ile Ile Leu 150 155 Ser Val Lys Gln Ala Thr Leu Asn Pro Ala Ser Leu Gln Cys Glu Leu 170 Asp Lys Asn Asn Ile Pro Thr Arg Ser Tyr Val Ser Tyr Phe Tyr His Asp Ser Leu Tyr Thr Thr Asp Cys Tyr Thr Ala Lys Ala Ser Leu Ala 195 200 205 Gly Xaa Leu Ser Leu Met Leu Ile Cys Thr Leu Leu Glu Phe Cys Leu 215 Ala Val Leu Thr Ala Val Leu Arg Trp Lys Gln Ala Tyr Ser Asp Phe 235 Pro Gly Glu Lys Asp Phe Arg Ile Ile Gly Leu Ser Gln Phe Leu His 245 250 Ser

<210> 758

<211> 319

<212> PRT

<213> Homo sapiens

<400> 758

Pro Gly Ser Thr His Ala Ser Gly Lys Ile Gln Asn Lys Trp Leu Arg

1 10 15

Pro Ser Pro Arg Ser His Arg Thr Pro Glu Ser Gly Arg Val Leu Ser 20 25 30

Leu Phe Arg Leu Pro Pro Pro Gly Met Ala Leu Ser Gly Ser Thr Pro 35 40 45

Ala Pro Cys Trp Glu Glu Asp Glu Cys Leu Asp Tyr Tyr Gly Met Leu

	50					55					60				
Ser 65	Leu	His	Arg	Met	Phe 70	Glu	Val	Val	Gly	Gly 75	Gln	Leu	Thr	Glu	Cys 80
Glu	Leu	Glu	Leu	Leu 85	Ala	Phe	Leu	Leu	Asp 90	Glu	Ala	Pro	Gly	Ala 95	Ala
Gly	Gly	Leu	Ala 100	Arg	Ala	Arg	Ser	Gly 105	Leu	Glu	Leu	Leu	Leu 110	Glu	Leu
Glu	Arg	Arg 115	Gly	Gln	Cys	Asp	Glu 120	Ser	Asn	Leu	Arg	Leu 125	Leu	Gly	Gln
Leu	Leu 130	Arg	Val	Leu	Ala	Arg 135	His	Asp	Leu	Leu	Pro 140	His	Leu	Ala	Arg
Lys 145	Arg	Arg	Arg	Pro	Val 150	Ser	Pro	Glu	Arg	Tyr 155	Ser	Tyr	Gly	Thr	Ser 160
Ser	Ser	Ser	Lys	Arg 165	Thr	Glu	Gly	Ser	Cys 170	Arg	Arg	Arg	Arg	Gln 175	Ser
Ser	Ser	Ser	Ala 180	Asn	Ser	Gln	Gln	Gly 185	Gln	Trp	Glu	Thr	Gly 190	Ser	Pro
Pro	Thr	Lys 195	Arg	Gln	Arg	Arg	Ser 200	Arg	Gly	Arg	Pro	Ser 205	Gly	Gly	Ala
Arg	Arg 210	Arg	Arg	Arg	Gly	Ala 215	Pro	Ala	Ala	Pro	Gln 220	Gln	Gln	Ser	Glu
Pro 225	Ala	Arg	Pro	Ser	Ser 230	Glu	Gly	Lys	Val	Thr 235	Cys	Asp	Ile	Arg	Leu 240
Arg	Val	Arg	Ala	Glu 245	Tyr	Сув	Glu	His	Gly 250	Pro	Ala	Leu	Glu	Gln 255	Gly
Val	Ala	Ser	Arg 260	Arg	Pro	Gln	Ala	Leu 265	Ala	Arg	Gln	Leu	Asp 270	Val	Phe
Gly	Gln	Ala 275	Thr	Ala	Val	Leu	Arg 280	Ser	Arg	Asp	Leu	Gly 285	Ser	Val	Val
Cys	Asp 290	Ile	Lys	Phe	Ser	Glu 295	Leu	Ser	Tyr	Leu	Asp 300	Ala	Phe	Trp	Gly
Asp	Tyr	Leu	Ser	Gly	Ala 310	Leu	Leu	Gln	Pro	Cys 315	Gly	Ala	Cys	Ser	

789

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<210> 759
<211> 155
<212> PRT
<213> Homo sapiens
<220>
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<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 759
Glu Ser Trp Leu Val Leu Gly Arg Arg Lys Ala Gly Arg Leu Ile Gly
                  5
Ala Cys Gly Phe Glu Pro Pro His Phe Leu Thr Leu Asp Leu Glu Met
                                 25
His Arg Asp Ser Cys Pro Leu Asp Cys Lys Val Tyr Val Gly Asn Leu
         35
                             40
Gly Asn Asn Gly Asn Lys Thr Glu Leu Glu Arg Ala Phe Gly Tyr Tyr
                         55
Gly Pro Leu Arg Ser Val Trp Val Ala Arg Asn Pro Pro Gly Phe Ala
                     70
Phe Val Glu Phe Glu Asp Pro Arg Asp Ala Ala Asp Ala Val Arg Glu
                 85
Leu Asp Gly Arg Thr Leu Cys Gly Cys Arg Val Arg Val Glu Leu Ser
Asn Gly Glu Lys Arg Ser Arg Asn Arg Gly Pro Pro Pro Ser Trp Gly
        115
                           120
                                                125
Arg Arg Pro Arg Asp Asp Tyr Arg Arg Arg Ser Pro Pro Pro Arg Arg
Arg Val Xaa Ile Met Ser Leu Leu Thr Thr Leu
                   150
<210> 760
<211> 753
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<400> 760

<212> PRT

<213> Homo sapiens

Leu Lys Lys Gly Ala Ala Glu Glu Ala Glu Leu Glu Asp Ser Asp Asp

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Glu	Glu	Lys	Pro 20	Val	Lys	Gln	Asp	Asp 25	Phe	Pro	Lys	Asp	Phe 30	Gly	Pro
Arg	Lys	Leu 35	Lys	Thr	Gly	Gly	Asn 40	Phe	Lys	Pro	Ser	Gln 45	Lys	Gly	Phe
Ala	Gly 50	Gly	Thr	Lys	Ser	Phe 55	Met	Asp	Phe	Gly	Ser 60	Trp	Glu	Arg	His
Thr 65	Lys	Gly	Ile	Gly	Gln 70	Lys	Leu	Leu	Gln	Lys 75	Met	Gly	туr	Val	Pro 80
Gly	Arg	Gly	Leu	Gly 85	Lys	Asn	Ala	Gln	Gly 90	Ile	Ile	Asn	Pro	11e 95	Glu
Ala	Lys	Gln	Arg 100	Lys	Gly	Lys	Gly	Ala 105	Val	Gly	Ala	Tyr	Gly 110	Ser	Glu
Arg	Thr	Thr 115	Gln	Ser	Met	Gln	Asp 120	Phe	Pro	Val	Val	Asp 125	Ser	Glu	Glu
Glu	Ala 130	Glu	Glu	Glu	Phe	Gln 135	Lys	Glu	Leu	Ser	Gln 140	Trp	Arg	Lys	Asp
Pro 145	Ser	Gly	Ser	Lys	Lys 150	Lys	Pro	Lys	Tyr	Ser 155	Tyr	Lys	Thr	Val	Glu 160
Glu	Leu	Lys	Ala	Lys 165	Gly	Arg	Ile	Ser	Lys 170	Lys	Leu	Thr	Ala	Pro 175	Gln
Lys	Glu	Leu	Ser 180	Gln	Val	Lys	Val	Ile 185	Asp	Met	Thr	Gly	Arg 190	Glu	Gln
Lys	Val	Туг 195	Tyr	Ser	Tyr	Ser	Gln 200	Ile	Ser	His	Lys	His 205	Asn	Val	Pro
Asp	Asp 210	Gly	Leu	Pro	Leu	Gln 215	Ser	Gln	Gln	Leu	Pro 220	Gln	Ser	Gly	Lys
Glu 225	Ala	Lys	Ala	Pro	Gly 230	Phe	Ala	Leu	Pro	Glu 235	Leu	Glu	His	Asn	Leu 240
Gln	Leu	Leu	Ile	Asp 245	Leu	Thr	Glu	Gln	Glu 250	Ile	Ile	Gln	Asn	Asp 255	Arg
Gln	Leu	Gln	Туг 260	Glu	Arg	Asp	Met	Val 265	Val	Asn	Leu	Phe	His 270	Glu	Leu
Glu	Lvs	Met	Thr	Glu	Val	Leu	Asp	His	Glu	Glu	Ara	Val	Ile	Ser	Agn

		2/5					280					285			
Leu	Ser 290	Lys	Val	Leu	Glu	Met 295	Val	Glu	Glu	Cys	Glu 300	Arg	Arg	Met	Gln
Pro 305	Asp	Cys	Ser	Asn	Pro 310	Leu	Thr	Leu	Asp	Glu 315	Cys	Ala	Arg	Ile	Phe 320
Glu	Thr	Leu	Gln	Asp 325	Lys	Tyr	Tyr	Glu	Glu 330	Tyr	Arg	Met	Ser	Asp 335	Arg
Val	Asp	Leu	Ala 340	Val	Ala	Ile	Val	Tyr 345	Pro	Leu	Met	Lys	Glu 350	Tyr	Phe
Lys	Glu	Trp 355	Asp	Pro	Leu	Lys	Asp 360	Cys	Thr	Tyr	Gly	Thr 365	Glu	Ile	Ile
Ser	Lys 370	Trp	Lys	Ser	Leu	Leu 375	Glu	Asn	Asp	Gln	Leu 380	Leu	Ser	His	Gly
Gly 385	Gln	Asp	Leu	Ser	Ala 390	Asp	Ala	Phe	His	Arg 395	Leu	Ile	Trp	Glu	Val 400
Trp	Met	Pro	Phe	Val 405	Arg	Asn	Ile	Val	Thr 410	Gln	Trp	Gln	Pro	Arg 415	Asn
Cys	Asp	Pro	Met 420	Val	Asp	Phe	Leu	Asp 425	Ser	Trp	Val	His	Ile 430	Ile	Pro
Val	Trp	Ile 435	Leu	Asp	Asn	Ile	Leu 440	Asp	Gln	Leu	Ile	Phe 445	Pro	Lys	Leu
Gln	Lys 450	Glu	Val	Glu	Asn	Trp 455	Asn	Pro	Leu	Thr	Asp 460	Thr	Val	Pro	Ile
His 465	Ser	Trp	Ile	His	Pro 470	Trp	Leu	Pro	Leu	Met 475	Gln	Ala	Arg	Leu	Glu 480
Pro	Leu	Tyr	Ser	Pro 485	Ile	Arg	Ser	Lys	Leu 490	Ser	Ser	Ala	Leu	Gln 495	Lys
Trp	His	Pro	Ser 500	Asp	Ser	Ser	Ala	Lys 505	Leu	Ile	Leu	Gln	Pro 510	Trp	Lys
Asp	Val	Phe 515	Thr	Pro	Gly	Ser	Trp 520	Glu	Ala	Phe	Met	Val 525	Lys	Asn	Ile
Val	Pro 530	Lys	Leu	Gly	Met	Cys 535	Leu	Gly	Glu	Leu	Val 540	Ile	Asn	Pro	His
Gln	Gln	His	Met	Asp	Ala	Phe	Tyr	Trp	Val	Ile	Asp	Trp	Glu	Gly	Met

792

545					550					555					560
Ile	Ser	Val	Ser	Ser 565	Leu	Val	Gly	Leu	Leu 570	Glu	Lys	His	Phe	Phe 575	Pro
Lys	Trp	Leu	Gln 580	Val	Leu	Cys	Ser	Trp 585	Leu	Ser	Asn	Ser	Pro 590	Asn	туг
Glu	Glu	Ile 595	Thr	Lys	Trp	туг	Leu 600	Gly	Trp	Lys	Ser	Met 605	Phe	Ser	Asp
Gln	Val 610	Leu	Ala	His	Pro	Ser 615	Val	Lys	Asp	Lys	Phe 620	Asn	Glu	Ala	Leu
Asp 625	Ile	Met	Asn	Arg	Ala 630	Val	Ser	Ser	Asn	Val 635	Gly	Ala	Tyr	Met	Gln 640
Pro	Gly	Ala	Arg	Glu 645	Asn	Ile	Ala	туr	Leu 650	Thr	His	Thr	Glu	Arg 655	Arg
Lys	Asp	Phe	Gln 660	Tyr	Glu	Ala	Met	Gln 665	Glu	Arg	Arg	Glu	Ala 670	Glu	Asn
Met	Ala	Gln 675	Arg	Gly	Ile	Gly	Val 680	Ala	Ala	Ser	Ser	Val 685	Pro	Met	Asr
Phe	Lys 690	Asp	Leu	Ile	Glu	Thr 695	Lys	Ala	Glu	Glu	His 700	Asn	Ile	Val	Ph∈
Met 705	Pro	Val	Ile	Gly	Lys 710	Arg	His	Glu	Gly	Lys 715	Gln	Leu	Tyr	Thr	Phe 720
Gly	Arg	Ile	Val	Ile 725	Tyr	Ile	Asp	Arg	Gly 730	Val	Val	Phe	Val	Gln 735	Gly
Glu	Lys	Thr	Trp 740	Val	Pro	Thr	Ser	Leu 745	Gln	Ser	Leu	Ile	Asp 750	Met	Ala
Lvs															

<210> 761

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

793

<223> Xaa equals any of the naturally occurring L-amino acids <400> 761 Val Ala Lys Asp Met Ala Ala Ala Xaa Val Arg Cys Ile Arg Lys Glu 5 Ile Arg Asp Leu Tyr Val Asn Ile Gln Pro Val Gln Glu Pro Lys Asp 25 Gln Ala Phe Gly Asn Gly Asn Gly Ile Ile Ile Ala Glu Thr Ser Thr Gly Cys Leu Phe Ala Gly Ser Ser Leu Gly Lys Arg Gly Val Asn Ala Asp Lys Val Gly Ile Glu Ala Ala Glu Met Leu Leu Ala Asn Leu Arg His Gly Gly Thr Val Asp Glu Tyr Leu Gln Asp Gln Leu Ile Val Phe Met Ala Leu Ala Asn Gly Val Ser Arg Ile Lys Thr Gly Pro Val Thr Leu His Thr Gln Thr Ala Ile His Phe Ala Glu Gln Ile Ala Lys 120 Ala Lys Phe Ile Val Lys Lys Ser Glu Asp Glu Glu Asp Ala Ala Lys 130 Asp Thr Tyr Ile Ile Glu Cys Gln Gly Ile Gly Met Thr Asn Pro Asn 145 150 155 Leu <210> 762 <211> 491 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (78)

<220> <221> SITE <222> (158)

<22	3> X	aa e	qual	s an	y of	the	nati	ural	ly o	ccur	ring	L-ai	nino	acı	ds
<22	0>														
<22	1> \$:	ITE													
	2> (•													
<22	3> Xa	aa e	qual	s any	y of	the	nati	ıral	ly o	ccur	ring	L-ai	mino	acio	is
<22	0>														
<22	1> s:	ITE													
<22	2> (4	457)													
<22	3> X	aa e	qual	s any	y of	the	nati	ıral	Ly o	ccur	ring	L-a	mino	acio	is
<40	0> 7(62													
			Pro	Leu	Phe	Leu	Gly	Gly	Pro	Ser	Pro	Ala	Glu	Asp	Arg
1		•		5			-	-	10					15	_
										_			_		
Cys	Ala	Ile		Leu	Ser	Arg	Arg	-	Arg	Val	Pro	Leu	_	Arg	His
			20					25					30		
Arq	Ala	Glu	Pro	Ser	Pro	Pro	Ala	Phe	Cys	Ser	Lys	Val	Glu	Gly	Tyr
		35					40		•		-	45		-	•
Gly		Val	Cys	Ser	Cys	-	Asp	Pro	Thr	Pro	Ile	Glu	Phe	Ser	Pro
	50					55					60				
A c n	Pro	Ten	Pro	Acn	Acn	Tve	17a l	Ten	Acn	t/ = 1	Pro	Val	Vaa	W= 1	Tle
65	110	пец	FIO	vaħ	70	БУЗ	Val	Leu	Vali	75	110	Val	naa	Val	80
0,5					, ,										•
Ala	Gly	Asn	Arg	Pro	Asn	Tyr	Leu	Tyr	Arg	Met	Leu	Arg	Ser	Leu	Leu
				85					90					95	
Ser	Ala	Gln	_	Val	Ser	Pro	Gln		Ile	Thr	Val	Phe		Asp	Gly
			100					105					110		
ľvr	Tvr	Glu	Glu	Pro	Met	Asp	Val	Val	Ala	Leu	Phe	Glv	Leu	Ara	Glv
- , -	-1-	115					120					125		5	1
Ile	Gln	His	Thr	Pro	Ile	Ser	Ile	Lys	Asn	Ala	Arg	Val	Ser	Gln	His
	130					135					140				
.	T		C	T	mh		mb	D		T	Dho	D	V	n1-	.
145	гÀг	ALA	ser	Leu	150	Ala	Thr	Pne	ASN	155	Phe	PIO	хаа	Ala	Lys
143					130					133					100
Phe	Ala	Val	Val	Leu	Glu	Glu	Asp	Leu	Asp	Ile	Ala	Val	Asp	Phe	Phe
				165					170				•	175	
Ser	Phe	Leu		Gln	Ser	Ile	His		Leu	Glu	Glu	Asp	_	Ser	Leu
			180					185					190		
Pur-	Cve	Tle	Ser	Δl =	האו) Aen	Δen	Gln	Glv	TUY	Glu	Hie	ጥኮታ	בום	G1
. 1 -	~y 5	195	SEL	nia	5	A311	200	J111	J.,	-1-	-14	205	****	ALG	GIU

Asp	210	Ala	Leu	Leu	Tyr	Arg 215	Val	Glu	Thr	Met	220	GIY	Leu	GIY	Trp
Val 225	Leu	Arg	Arg	Ser	Leu 230	туг	Lys	Glu	Glu	Leu 235	Glu	Pro	Lys	Trp	Pro 240
Thr	Pro	Glu	Lys	Leu 245	Trp	Asp	Trp	Asp	Met 250	Trp	Met	Arg	Met	Pro 255	Glu
Gln	Arg	Arg	Gly 260	Arg	Glu	Cys	Ile	Ile 265	Pro	Asp	Val	Ser	Arg 270	Ser	Tyr
His	Phe	Gly 275	Ile	Val	Gly	Leu	Asn 280	Met	Asn	Gly	Tyr	Phe 285	His	Glu	Ala
Tyr	Phe 290	Lys	Lys	His	Lys	Phe 295	Asn	Thr	Val	Pro	Gly 300	Val	Gln	Leu	Arg
Asn 305	Val	Asp	Ser	Leu	Lys 310	Lys	Glu	Ala	Tyr	Glu 315	Val	Glu	Val	His	Arg 320
Leu	Leu	Ser	Glu	Ala 325	Glu	Val	Leu	Asp	His 330	Ser	Lys	Asn	Pro	Cys 335	Glu
Asp	Ser	Phe	Leu 340	Pro	Asp	Thr	Glu	Gly 345	His	Thr	Tyr	Val	Ala 350	Phe	Ile
Arg	Met	Glu 355	Lys	Asp	Asp	Asp	Phe 360	Thr	Thr	Trp	Thr	Gln 365	Leu	Ala	Lys
Cys	Leu 370	His	Ile	Trp	Asp	Leu 375	Asp	Val	Arg	Gly	Asn 380	His	Arg	Gly	Leu
Trp 385	Arg	Leu	Phe	Arg	Lys 390	Lys	Asn	His	Phe	Leu 395	Val	Val	Gly	Val	Pro 400
		Pro	-	405		_			410					415	_
		Gly	420					425					430		
Leu	Gly	Trp 435	Asn	Ala	Ala	Leu	Arg 440	Val	Gly	Leu	Ala	Leu 445	Thr	Gln	Glu
	450	Val				455					460				
Thr 465	Gln	Thr	His	Ser	Glu 470	Thr	Leu	Arg	His	Trp 475	Thr	Arg	Pro	Pro	Leu 480

Ser Leu Leu Phe Val Gln Ile Ser Lys Ala Gly 485 490

<210> 763

<211> 53

<212> PRT

<213> Homo sapiens

<400> 763

Leu Pro Gln Leu Asn Gly Tyr Ile Glu Lys Ser Thr Pro Tyr Glu Cys

1 10 15

Gly Phe Asp Pro Ile Ser Pro Ala Arg Val Pro Phe Ser Ile Lys Phe 20 25 30

Phe Leu Val Ala Ile Thr Phe Leu Leu Phe Asp Leu Glu Ile Ala Leu 35 40 45

Leu Leu Pro Leu Pro 50

<210> 764

<211> 176

<212> PRT

<213> Homo sapiens

<400> 764

His Ala Ser Ala His Ala Ser Ala His Ala Ser Gly Arg Arg Lys Lys
1 10 15

Glu Arg Lys Glu Lys Arg Arg Gln Arg Lys Gly Glu Glu Cys Ser Leu 20 25 30

Pro Gly Leu Thr Cys Phe Thr His Asp Asn Asn His Trp Gln Thr Ala 35 40 45

Pro Phe Trp Asn Leu Gly Ser Phe Cys Ala Cys Thr Ser Ser Asn Asn 50 55 60

Asn Thr Tyr Trp Cys Leu Arg Thr Val Asn Glu Thr His Asn Phe Leu 65 70 75 80

Phe Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Met Asn Thr 85 90 95

Asp Pro Tyr Gln Leu Thr Asn Thr Val His Thr Val Glu Arg Gly Ile

 Leu Asn Gln 115
 Leu His Val Gln 120
 Leu Met Glu Leu Arg 125
 Ser Cys Gln Gly 125

 Tyr Lys Gln 230
 Cys Asn Pro 135
 Pro 135
 Leu Asn Leu Asn 140
 Val Gly Asn Lys 140

 Asp Gly Gly 300
 Ser Tyr Asp Leu His Arg Gly 155
 Gln Leu Trp Ala Trp Met 160

 Gly Arg Leu Ile Ser 165
 Pro Val Ser Leu Gln Thr Ser Thr Gly Lys Ala 175

<210> 765 <211> 320 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (301) <223> Xaa equals any of the naturally occurring L-amino acids <400> 765 Val Xaa Pro Gly Phe Glu Asn Ile Leu Phe Ala His Ser Ser Trp Tyr 5 10 15 Thr Tyr Ala Ala Met Leu Arg Ile Tyr Lys His Trp Asp Phe Asn Ile Ile Asp Lys Asp Thr Ser Ser Ser Arg Leu Ser Phe Ser Ser Tyr Pro 40 Gly Phe Leu Glu Ser Leu Asp Asp Phe Tyr Ile Leu Ser Ser Gly Leu 50

Gln Val Ile Pro Glu Thr Leu Leu Ser Trp Gln Arg Val Arg Val Ala

Ile Leu Leu Gln Thr Thr Asn Ser Val Phe Asn Lys Thr Leu Leu Lys

				85					90					95	
Asn	Met	Met	Ala 100	Asp	Ser	Gly	Lys	Arg 105	Trp	Ala	Asp	Ile	Phe 110	Ser	Lys
Tyr	Asn	Ser 115	Gly	Thr	Tyr	Asn	Asn 120	Gln	Tyr	Met	Val	Leu 125	Asp	Leu	Lys
Lys	Val 130	Lys	Leu	Asn	His	Ser 135	Leu	Asp	Lys	Gly	Thr 140	Leu	Tyr	Ile	Val
Glu 145	Gln	Ile	Pro	Thr	Туг 150	Val	Glu	Tyr	Ser	Glu 155	Gln	Thr	Asp	Val	Leu 160
Arg	Lys	Gly	туг	Trp 165	Pro	Ser	Tyr	Asn	Val 170	Pro	Phe	His	Glu	Lys 175	Ile
Tyr	Asn	Trp	Ser 180	Gly	Tyr	Pro	Leu	Leu 185	Val	Gln	Lys	Leu	Gly 190	Leu	Asp
Tyr	Ser	Tyr 195	Asp	Leu	Ala	Pro	Arg 200	Ala	Lys	Ile	Phe	Arg 205	Arg	Asp	Gln
Gly	Lys 210	Val	Thr	Asp	Thr	Ala 215	Ser	Met	Lys	Tyr	Ile 220	Met	Arg	Tyr	Asn
Asn 225	Tyr	Lys	Lys	Asp	Pro 230	Tyr	Ser	Arg	Gly	Asp 235	Pro	Cys	Asn	Thr	Ile 240
Cys	Cys	Arg	Glu	Asp 245	Leu	Asn	Ser	Pro	Asn 250	Pro	Ser	Pro	Gly	Gly 255	Cys
Tyr	Asp	Thr	Lys 260	Val	Ala	Asp	Ile	Tyr 265	Leu	Ala	Ser	Gln	Туг 270	Thr	Ser
Tyr	Ala	Ile 275	Ser	Gly	Pro	Thr	Val 280	Gln	Gly	Gly	Leu	Pro 285	Val	Phe	Arg
Trp	Asp 290	Arg	Phe	Asn	Lys	Thr 295	Leu	His	Gln	Gly	Met 300	Xaa	Glu	Val	Tyr
Asn 305	Phe	Asp	Phe	Ile	Thr	Met	Lys	Pro	Ile	Leu 315	Lys	Leu	Asp	Ile	Lys 320

799

<212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids Gln Xaa Ala Tyr Ile Ala Val Xaa Arg Ala Gly Gly Ile Glu Thr Ile 5 10 Ala Asn Glu Phe Ser Asp Arg Cys Thr Pro Ser Val Ile Ser Phe Gly Ser Lys Asn Arg Thr Ile Gly Val Ala Ala Lys Asn Gln Gln Ile Thr 40 His Ala Asn Asn Thr Val Ser Asn Phe Lys Arg Phe His Gly Arg Ala 55 Phe Asn Asp Pro Phe Ile Gln Lys Glu Lys Glu Asn Leu Ser Tyr Asp Leu Val Pro Leu Lys Asn Gly Gly Val Gly Ile Lys Val Met Tyr Met Gly Glu Glu His Leu Phe Ser Val Glu Gln Ile Thr Ala Met Leu Leu 105 Thr Lys Leu Lys Glu Thr Ala Glu Asn Ser Leu Lys Lys Pro Val Thr 120 Asp Cys Val Ile Ser Val Pro Ser Phe Phe Thr Asp Ala Glu Arg Arg 130 Ser Val Leu Asp Ala Ala Gln Ile Val Gly Leu Asn Cys Leu Arg Leu 150 155 Met Asn Asp Met Thr Ala Val Ala Leu Asn Tyr Gly Ile Tyr Lys Gln 165 170 Asp Leu Pro Ser Leu Asp Glu Lys Pro Arg Ile Val Val Phe Val Asp

Met Gly His Ser Ala Phe Gln Val Ser Ala Cys Ala Phe Asn Lys Gly

		195					200					205			
Lys	Leu 210	Lys	Val	Leu	Gly	Thr 215	Ala	Phe	Asp	Pro	Phe 220	Leu	Gly	Gly	Lys
Asn 225	Phe	Asp	Glu	Lys	Leu 230	Val	Glu	His	Phe	Cys 235	Ala	Glu	Phe	Lys	Thr 240
Lys	Tyr	Lys	Leu	Asp 245	Ala	Lys	Ser	Lys	11e 250	Arg	Ala	Leu	Leu	Arg 255	Leu
Tyr	Gln	Glu	Cys 260	Glu	Lys	Leu	Lys	Lys 265	Leu	Met	Ser	Ser	Asn 270	Ser	Thr
Asp	Leu	Pro 275	Leu	Asn	Ile	Glu	Cys 280	Phe	Met	Asn	Asp	Lys 285	Asp	Val	Ser
Gly	Lys 290	Met	Asn	Arg	Ser	Gln 295	Phe	Glu	Glu	Leu	300	Ala	Glu	Leu	Leu
Gln 305	Lys	Ile	Glu	Val	Pro 310	Leu	Tyr	Ser	Leu	Leu 315	Glu	Gln	Thr	His	Leu 320
Lys	Val	Glu	Asp	Val 325	Ser	Ala	Val	Glu	11e 330	Val	Gly	Gly	Ala	Thr 335	Arg
Ile	Pro	Ala	Val 340	Lys	Glu	Arg	Ile	Ala 345	Lys	Phe	Phe	Gly	Lys 350	Asp	Ile
Ser	Thr	Thr 355	Leu	Asn	Ala	Asp	Glu 360	Ala	Val	Ala	Arg	Gly 365	Суз	Ala	Leu
Gln	Cys 370	Ala	Ile	Leu	Ser	Pro 375	Ala	Phe	Lys	Val	Arg 380	Glu	Phe	Ser	Val
Thr 385	Asp	Ala	Val	Pro	Phe 390	Pro	Ile	Ser	Leu	Ile 395	Trp	Asn	His	Asp	Ser 400
Glu	Asp	Thr	Glu	Gly 405	Val	His	Glu	Val	Phe 410	Ser	Arg	Asn	His	Ala 415	Ala
Pro	Phe	Ser	Lys 420	Val	Leu	Thr	Phe	Leu 425	Arg	Arg	Gly	Pro	Phe 430	Glu	Leu
		435					440			Pro		445			
	450					455				Ala	460			_	
Lys	Ser	Arg	Val	Lys	Val	Lys	Val	Arg	Val	Asn	Thr	His	Gly	Ile	Phe

465					470					475					480
Thr	Ile	Ser	Thr	Ala 485	Ser	Met	Val	Glu	Lys 490	Val	Pro	Thr	Glu	Glu 495	Asn
Glu	Met	Ser	Ser 500	Glu	Ala	Asp	Met	Glu 505	Cys	Leu	Asn	Gln	Arg 510	Pro	Pro
Glu	Asn	Pro 515	Asp	Thr	Asp	Lys	Asn 520	Val	Gl'n	Gln	Asp	Asn 525	Ser	Glu	Ala
Gly	Thr 530	Gln	Pro	Gln	Val	Gln 535	Thr	Asp	Ala	Gln	Gln 540	Thr	Ser	Gln	Ser
Pro 545	Pro	Ser	Pro	Glu	Leu 550	Thr	Ser	Glu	Glu	Asn 555	Lys	Ile	Pro	Asp	Ala 560
Asp	Lys	Ala	Asn	Glu 565	Lys	Lys	Val	Asp	Gln 570	Pro	Pro	Glu	Ala	Lys 575	Lys
Pro	Lys	Ile	Lys 580	Val	Val	Asn	Val	Glu 585	Leu	Pro	Ile	Glu	Ala 590	Asn	Leu
Val	Trp	Gln 595	Leu	Gly	Lys	Asp	Leu 600	Leu	Asn	Met	Tyr	Ile 605	Glu	Thr	Glu
Gly	Lys 610	Met	Ile	Met	Gln	Asp 615	Lys	Leu	Glu	Lys	Glu 620	Arg	Asn	Asp	Ala
Lys 625	Asn	Ala	Val	Glu	Glu 630	Tyr	Val	Tyr	Glu	Phe 635	Arg	Asp	Lys	Leu	Cys 640
Gly	Pro	туг	Glu	Lys 645	Phe	Ile	Cys	Glu	Gln 650	Asp	His	Gln	Asn	Phe 655	Leu
Arg	Leu	Leu	Thr 660	Glu	Thr	Glu	Asp	Trp 665	Leu	Tyr	Glu	Glu	Gly 670	Glu	Asp
Gln	Ala	Lys 675	Gln	Ala	туг	Val	Asp 680	Lys	Leu	Glu	Glu	Leu 685	Met	Lys	Ile
Gly	Thr 690	Pro	Val	Lys	Val	Arg 695	Phe	Gln	Glu	Ala	Glu 700	Glu	Arg	Pro	Lys
Met 705	Phe	Glu	Glu	Leu	Gly 710	Gln	Arg	Leu	Gln	His 715	Tyr	Ala	Lys	Ile	Ala 720
Ala	Asp	Phe	Arg	Asn 725	Lys	Asp	Glu	Lys	Туг 730	Asn	His	Ile	Asp	Glu 735	Ser
Glu	Met	Lys	Lys	Val	Glu	Lys	Ser	Val	Asn	Glu	Val	Met	Glu	Trp	Met

802

 Asn
 Asn
 Yal
 Asn
 Ala
 Gln
 Ala
 Lys
 Lys
 Ser
 Leu
 Asp
 Gln
 Asp
 Pro

 Val
 Yal
 Arg
 Ala
 Gln
 Gln
 Lys
 Thr
 Lys
 Ile
 Lys
 Glu
 Leu
 Asn
 Asn

 785
 Glu
 Pro
 Val
 Yal
 Thr
 Fro
 Lys
 Ile
 Lys
 Glu
 Leu
 Asn
 Asn

 Asp
 Leu
 Glu
 Pro
 Asn
 Asn
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 Lys
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 Asn
 Asn

 Asp
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 Lys
 Asn
 Asn

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Glu Asp Glu Val Ser Cys Glu Thr Val Lys Met Gly Arg Lys Asp Ser 35 40 45

Leu Asp Leu Glu Glu Glu Ala Ala Ser Gly Ala Ser Ser Ala Leu Glu
50 55 60

Ala Gly Gly Ser Ser Gly Leu Glu Asp Val Leu Pro Leu Leu Gln Gln 65 70 75 80

Ala Asp Glu Leu His Arg Gly Asp Glu Gln Gly Lys Arg Glu Gly Phe
85 90 95

Gln Leu Leu Asn Asn Lys Leu Val Tyr Gly Ser Arg Gln Asp Phe 100 105 110

803

Leu Trp Arg Leu Ala Arg Ala Tyr Ser Asp Met Cys Glu Leu Thr Glu 115 125 Glu Val Ser Glu Lys Lys Ser Tyr Ala Leu Asp Gly Lys Glu Glu Ala 135 Glu Ala Ala Leu Glu Lys Gly Asp Glu Ser Ala Asp Cys His Leu Trp 155 150 Tyr Ala Val Leu Cys Gly Gln Leu Ala Glu His Glu Ser Ile Gln Arg 165 170 Arg Ile Gln Ser Gly Phe Ser Phe Lys Glu His Val Asp Lys Ala Ile 185 Ala Leu Gln Pro Glu Asn Pro Met Ala His Phe Leu Leu Gly Arg Trp 195 200 Cys Tyr Gln Val Ser His Leu Ser Trp Leu Glu Lys Lys Thr Ala Thr 215 Ala Leu Leu Glu Ser Pro Leu Ser Ala Thr Val Glu Asp Ala Leu Gln 235 Ser Phe Leu Lys Ala Glu Glu Leu Gln Pro Gly Phe Ser Lys Ala Gly 245 250 Arg Val Tyr Ile Ser Lys Cys Tyr Arg Glu Leu Gly Lys Asn Ser Glu 265 Ala Arg Trp Trp Met Lys Leu Ala Leu Glu Leu Pro Asp Val Thr Lys 280 Glu Asp Leu Ala Ile Gln Lys Asp Leu Glu Glu Leu Glu Val Ile Leu 290 295 300 Arg Asp 305 <210> 768 <211> 404

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<212> PRT

<213> Homo sapiens

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Ala	Ser	Gln	Gly 20	Arg	Val	Gly	Trp	Arg 25	Ala	Asp	Ala	Ala	Ala 30	Glu	Glu
Ala	Val	Arg 35	Ser	Val	Trp	Asn	Arg 40	Thr	Arg	Asp	Arg	Gly 45	Thr	Met	Ala
Pro	Gln 50	Asn	Leu	Ser	Thr	Phe 55	Cys	Leu	Leu	Leu	Leu 60	туr	Leu	Ile	Gly
Ala 65	Val	Ile	Ala	Gly	Arg 70	Asp	Phe	Tyr	Lys	Ile 75	Leu	Gly	Val	Pro	Arg 80
Ser	Ala	Ser	Ile	Lys 85	Asp	Ile	Lys	Lys	Ala 90	Tyr	Arg	Lys	Leu	Ala 95	Leu
Gln	Leu	His	Pro 100	Asp	Arg	Asn	Pro	Asp 105	Asp	Pro	Gln	Ala	Gln 110	Glu	Lys
Phe	Gln	Asp 115	Leu	Gly	Ala	Ala	Tyr 120	Glu	Val	Leu	Ser	Asp 125	Ser	Glu	Lys
Arg	Lys 130	Gln	Tyr	Asp	Thr	Tyr 135	Gly	Glu	Glu	Gly	Leu 140	Lys	Asp	Gly	His
Gln 145	Ser	Ser	His	Gly	Asp 150	Ile	Phe	Ser	His	Phe 155	Phe	Gly	Asp	Phe	Gly 160
Phe	Met	Phe	Gly	Gly 165	Thr	Pro	Arg	Gln	Gln 170	Asp	Arg	Asn	Ile	Pro 175	Arg
Gly	Ser	Asp	Ile 180	Ile	Val	Asp	Leu	Glu 185	Val	Thr	Leu	Glu	Glu 190	Val	Tyr
Ala	Gly	Asn 195	Phe	Val	Glu	Val	Val 200	Arg	Asn	Lys	Pro	Val 205	Ala	Arg	Gln
Ala	Pro 210	Gly	Lys	Arg	Lys	Cys 215	Asn	Cys	Arg	Gln	Glu 220	Met	Arg	Thr	Thr
Gln 225	Leu	Gly	Pro	Gly	Arg 230	Phe	Gln	Met	Thr	Gln 235	Glu	Val	Val	Cys	Asp 240
31u	Cys	Pro	Asn	Val 245	Lys	Leu	Val	Asn	Glu 250	Glu	Arg	Thr	Leu	Glu 255	Val
Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly

805

270

265

260

Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg Phe Arg 280 Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp Asp Leu 295 Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly Phe Glu 305 310 Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser Arg Asp 330 Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu Gly Leu 340 345 Pro Asn Phe Asp Asn Asn Ile Lys Gly Ser Leu Ile Ile Thr Phe 360 Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg Glu Gly 375 Ile Lys Gln Leu Leu Lys Gln Gly Ser Val Gln Lys Val Tyr Asn Gly 385 390 395 Leu Gln Gly Tyr <210> 769 <211> 123 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (38) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (43) <223> Xaa equals any of the naturally occurring L-amino acids <400> 769 Ile Glu Phe Val Phe Leu Glu Pro Trp Val Phe Thr Cys Leu Val Phe

Phe Cys Phe Gly Leu Ser Pro Ser Ile Lys Glu Val Tyr Ser Ser Lys

806

20 25 30 Lys Lys Lys Asn Xaa Arg Gly Gly Pro Xaa Pro Asn Ser Pro Tyr Ser Glu Ser Tyr Tyr Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp 55 Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Gln Ile Val Ser Val 100 105 Asn Ile Leu Val Lys Phe Ala Leu Asn Phe Trp 115 <210> 770 <211> 172 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <400> 770 Xaa Arg Gly Cys Val Val Glu Gly Asn Pro Val Leu Ala Gly Ser Cys 5 Asp Ser Thr Cys Ser His Leu Val Val Pro Ile Leu Leu Leu Val Ser Leu Gly Ser Ala Leu Ala Cys Leu Thr His Thr Pro Ser Phe Met Leu 40 Ile Leu Arg Gly Val Lys Lys Glu Asp Lys Thr Leu Ala Val Gly Ile Gln Phe Met Phe Leu Arg Ile Leu Ala Trp Met Pro Ser Pro Val Ile 75

His Gly Ser Ala Ile Asp Thr Thr Cys Val His Trp Ala Leu Ser Cys

807

Gly Arg Arg Ala Val Cys Arg Tyr Tyr Asn Asn Asp Leu Leu Arg Asn 105 Arg Phe Ile Gly Leu Gln Phe Phe Lys Thr Gly Ser Val Ile Cys 120 Phe Ala Leu Val Leu Ala Val Leu Arg Gln Gln Asp Lys Glu Ala Arg 135 Thr Lys Glu Ser Arg Ser Ser Pro Ala Val Glu Gln Gln Leu Leu Val 160 150 155 Ser Gly Pro Gly Lys Lys Pro Glu Asp Ser Arg Val 165 <210> 771 <211> 465 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (104) <223> Xaa equals any of the naturally occurring L-amino acids Arg Arg Thr Gln Tyr Leu Gly Ser Pro Gly Pro Asp Arg Gly Arg Lys

Thr Leu Gln Lys Ala Ile Asp Leu Val Thr Lys Ala Thr Glu Glu Asp
35 40 45

Gln Arg Ala Xaa Cys Gly Ala Asp Xaa Gly Asp Glu Met Thr Thr Ser 20 25 30

Lys Ala Lys Asn Tyr Glu Glu Ala Leu Arg Leu Tyr Gln His Ala Val50 55 60

Glu Tyr Phe Leu His Ala Ile Lys Tyr Glu Ala His Ser Asp Lys Ala

65					70					75					80
Lys	Glu	Ser	Ile	Arg 85	Ala	Lys	Cys	Val	Gln 90	Tyr	Leu	Asp	Arg	Ala 95	Glu
Lys	Leu	Lys	Asp 100	Tyr	Leu	Arg	Xaa	Lys 105	Glu	Lys	His	Gly	Lys 110	Lys	Pro
Val	Lys	Glu 115	Asn	Gln	Ser	Glu	Gly 120	Lys	Gly	Ser	Asp	Ser 125	Asp	Ser	Glu
Gly	Asp 130	Asn	Pro	Glu	Lys	Lys 135	Lys	Leu	Gln	Glu	Gln 140	Leu	Met	Gly	Ala
Val 145	Val	Met	Glu	Lys	Pro 150	Asn	Ile	Arg	Trp	Asn 155	Asp	Val	Ala	Gly	Leu 160
Glu	Gly	Ala	Lys	Glu 165	Ala	Leu	Lys	Glu	Ala 170	Val	Ile	Leu	Pro	Ile 175	Lys
Phe	Pro	His	Leu 180	Phe	Thr	Gly	Lys	Arg 185	Thr	Pro	Trp	Arg	Gly 190	Ile	Leu
Leu	Phe	Gly 195	Pro	Pro	Gly	Thr	Gly 200	Lys	Ser	Tyr	Leu	Ala 205	Lys	Ala	Val
Ala	Thr 210	Glu	Ala	Asn	Asn	Ser 215	Thr	Phe	Phe	Ser	Val 220	Ser	Ser	Ser	Asp
Leu 225	Met	Ser	Lys	Trp	Leu 230	Gly	Glu	Ser	Glu	Lys 235	Leu	Val	Lys	Asn	Leu 240
Phe	Glu	Leu	Ala	Arg 245	Gln	His	Lys	Pro	Ser 250	Ile	Ile	Phe	Ile	Asp 255	Glu
Val	Asp	Ser	Leu 260	Сув	Gly	Ser	Arg	Asn 265	Glu	Asn	Glu	Ser	Glu 270	Ala	Ala
Arg	Arg	Ile 275	Lys	Thr	Glu	Phe	Leu 280	Val	Gln	Met	Gln	Gly 285	Val	Gly	Asn
Asn	Asn 290	Asp	Gly	Thr	Leu	Val 295	Leu	Gly	Ala	Thr	Asn 300	Ile	Pro	Trp	Val
Leu 305	Asp	Ser	Ala	Ile	Arg 310	Arg	Arg	Phe	Glu	Lys 315	Arg	Ile	Tyr	Ile	Pro 320
Leu	Pro	Glu	Glu	Ala 325	Ala	Arg	Ala	Gln	Met 330	Phe	Arg	Leu	His	Leu 335	Gly
Ser	Thr	Pro	His	Asn	Leu	Thr	Asp	Ala	Asn	Ile	His	Glu	Leu	Ala	Arg

809

340 345 350 Lys Thr Glu Gly Tyr Ser Gly Ala Asp Ile Ser Ile Ile Val Arg Asp 360 Ser Leu Met Gln Pro Val Arg Lys Val Gln Ser Ala Thr His Phe Lys 375 Lys Val Cys Gly Pro Ser Arg Thr Asn Pro Ser Met Met Ile Asp Asp 390 Leu Leu Thr Pro Cys Ser Pro Gly Asp Pro Gly Ala Met Glu Met Thr Trp Met Asp Val Pro Gly Asp Lys Leu Leu Glu Pro Val Val Cys Met 420 425 430 Ser Asp Met Leu Arg Ser Leu Ala Thr Thr Arg Pro Thr Val Asn Ala 440 Asp Asp Leu Leu Lys Val Lys Lys Phe Ser Glu Asp Phe Gly Gln Glu Ser 465 <210> 772 <211> 467 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (151) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (160) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (445) <223> Xaa equals any of the naturally occurring L-amino acids Leu Gly Pro Ala Gly Leu Arg Arg Arg Thr Lys Arg Arg Lys Arg Gly 10 15

Asp	Asn	Ser	Thr 20	Asp	Thr	Thr	Gln	Gly 25	Asp	Pro	Leu	Ser	Ile 30	His	His
Tyr	Phe	His 35	Gly	Tyr	Leu	Ala	Gly 40	Phe	Ser	Val	Arg	Ser 45	Gly	Arg	Leu
Glu	Ser 50	Arg	Glu	Val	Ile	Glu 55	Cys	Leu	Tyr	Ala	Cys 60	Arg	Glu	Gly	Leu
Asp 65	Tyr	Arg	Asp	Phe	Glu 70	Ser	Leu	Gly	Lys	Gly 75	Met	Lys	Val	His	Val 80
Asn	Pro	Ser	Gln	Ser 85	Leu	Leu	Thr	Leu	Glu 90	Gly	Asp	Asp	Val	Glu 95	Thr
Phe	Asn	His	Ala 100	Leu	Gln	His	Val	Ala 105	Tyr	Met	Asn	Thr	Leu 110	Arg	Phe
Ala	Thr	Pro 115	Gly	Val	Arg	Pro	Leu 120	Arg	Leu	Thr	Thr	Ala 125	Val	Lys	Cys
Phe	Ser 130	Glu	Glu	Ser	Cys	Val 135	Ser	Ile	Pro	Glu	Val 140	Glu	Gly	Tyr	Val
Val 145	Val	Leu	Gln	Pro	Asp 150	Xaa	Pro	Gln	Ile	Leu 155	Leu	Ser	Gly	Thr	Xaa 160
His	Phe	Ala	Arg	Pro 165	Ala	Val	Asp	Phe	Glu 170	Gly	Thr	Asn	Gly	Val 175	Pro
Leu	Phe	Pro	Asp 180	Leu	Gln	Ile	Thr	Cys 185	Ser	Ile	Ser	His	Gln 190	Val	Glu
Ala	Lys	Lys 195	Asp	Glu	Ser	Trp	Gln 200	Gly	Thr	Val	Thr	Asp 205	Thr	Arg	Met
Ser	Asp 210	Glu	Ile	Val	His	Asn 215	Leu	Asp	Gly	Cys	Glu 220	Ile	Ser	Leu	Val
Gly 225	Asp	Asp	Leu	Asp	Pro 230	Glu	Arg	Glu	Ser	Leu 235	Leu	Leu	Asp	Thr	Thr 240
Ser	Leu	Gln	Gln	Arg 245	Gly	Leu	Glu	Leu	Thr 250	Asn	Thr	Ser	Ala	Туг 255	Leu
Thr	Ile	Ala	Gly 260	Val	Glu	Ser	Ile	Thr 265	Val	Tyr	Glu	Glu	Ile 270	Leu	Arg
Gln	Ala	Arg 275	Tyr	Arg	Leu	Arg	His 280	Gly	Ala	Ala	Leu	Tyr 285	Thr	Arg	Lys

118

Phe Arg Leu Ser Cys Ser Glu Met Asn Gly Arg Tyr Ser Ser Asn Glu 290 295 Phe Ile Val Glu Val Asn Val Leu His Ser Met Asn Arg Val Ala His 310 315 Pro Ser His Val Leu Ser Ser Gln Gln Phe Leu His Arg Gly His Gln 330 Pro Pro Pro Glu Met Ala Gly His Ser Leu Ala Ser Ser His Arg Asn 340 345 Ser Met Ile Pro Ser Ala Ala Thr Leu Ile Ile Val Val Cys Val Gly 360 Phe Leu Val Leu Met Val Val Leu Gly Leu Val Arg Ile His Ser Leu 370 375 His Arg Arg Val Ser Gly Ala Gly Gly Pro Pro Gly Ala Ser Ser Asp 390 Pro Lys Asp Pro Asp Leu Phe Trp Asp Asp Ser Ala Leu Thr Ile Ile 410 Val Asn Pro Met Glu Ser Tyr Gln Asn Arg Gln Ser Cys Val Thr Gly Ala Val Gly Gly Gln Gln Glu Asp Glu Asp Ser Ser Xaa Ser Glu Val 440 Ala Asp Ser Pro Ser Ser Asp Glu Arg Arg Ile Ile Glu Thr Pro Pro 450 455 460 His Arg Tyr 465 <210> 773 <211> 74 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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Lys Leu Gln His Ile Ala Ser Lys Gln Tyr Arg Asp Phe Xaa Ile Pro
                                 25
Tyr Lys Xaa Xaa Trp Leu Lys Xaa Xaa Ile His Ile Lys Leu Ile Leu
         35
                             40
                                                 45
Phe Phe Ala Cys Leu Phe Cys Val Leu Val Ala Ser Leu Lys Phe Asp
Leu Xaa Leu Leu Phe Val Xaa Gln Ile His
                     70
65
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4400- 774															
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Ara	Ala	Ala	Ala	Ala	Val	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val
			20					25				•	30		
			20					23					•		
_	_	_,		_	-1 1	~1					01		~1	- 1-	61 -
Ser	тгр		Ser	Arg	GIY	GIU		ALA	Pro	ASP	Gln		GIU	116	GIII
		35					40					45			
Arg	Leu	Pro	Gly	Leu	Ala	Lys	Gln	Pro	Ser	Phe	Arg	Gln	Tyr	Ser	Gly
	50					55					60				
Tyr	Leu	Lys	Gly	Ser	Gly	Ser	Lys	His	Leu	His	Tyr	Trp	Phe	Val	Glu
65		•	•		70		•			75	•	•			80
•••					. •										
C.~ **	~1 -	T		Dwa	C1	***	c~~	Dro	17 n 1	17 - 1	Leu	Trn	LOU	n e n	Clu
261	GIN	гуя	ASp		GIU	ASII	ser	PLO		val	ьеи	ırb	Ten		GLY
				85					90					95	
Gly	Pro	Gly	Cys	Ser	Ser	Leu	Asp	Gly	Leu	Leu	Thr	Glu	His	Gly	Pro
			100					105					110		
Phe	Leu	Val	Gln	Pro	Asp	Gly	Val	Thr	Leu	Glu	Tyr	Asn	Pro	Tyr	Ser
		115			_	_	120				_	125		_	
Tro	Δen	T.Au	Tle	Δla	Δsn	Val	T.e.u	Tur	T.e.11	Glu	Ser	Pro	Ala	Glv	Va 1
ΙΙĐ		БСС	110	nru	71011	135	шфи	-1-	DCu		140			01,	
	130					133					140				
		_			_		_		_			_	_		
Gly	Phe	Ser	Tyr	Ser	Asp	Asp	Lys	Phe	Tyr		Thr	Asn	Asp	Thr	
145					150					155					160
Val	Ala	Gln	Ser	Asn	Phe	Glu	Ala	Leu	Gln	Asp	Phe	Phe	Arg	Leu	Phe
				165					170					175	
Pro	Glu	Tvr	Lvs	Asn	Asn	Lvs	Leu	Phe	Leu	Thr	Gly	Glu	Ser	Tvr	Ala
		-1-	180			-1-		185			2		190	-1-	••
			100					103					170		
-1	-1.					•		1	•	*** 1		61 -			a
GIĀ	11e	-	TTE	Pro	Thr	Leu		val	Leu	val	Met		Asp	Pro	ser
		195					200					205			
												•			
Met	Asn	Leu	Gln	Gly	Leu	Ala	Val	Gly	Asn	Gly	Leu	Ser	Ser	Tyr	Glu
	210					215					220				
Gln	Asn	Asp	Asn	Ser	Leu	Val	Tyr	Phe	Ala	Tyr	Tyr	His	Gly	Leu	Leu
225					230		-			235	-		-		240

814

Gly	Asn	Arg	Leu	Trp 245	Ser	Ser	Leu	Gln	Thr 250	His	Cys	Cys	Ser	Gln 255	Asn
Lys	Cys	Asn	Phe 260	Tyr	Asp	Asn	Lys	Asp 265	Leu	Glu	Cys	Val	Thr 270	Asn	Leu
Gln	Glu	Val 275	Ala	Arg	Ile	Val	Gly 280	Asn	Ser	Gly	Leu	Asn 285	Ile	Tyr	Asn
Leu	туг 290	Ala	Pro	Cys	Ala	Gly 295	Gly	Val	Pro	Ser	His 300	Phe	Arg	Tyr	Glu
Lys 305	Asp	Thr	Val	Val	Val 310	Gln	Asp	Leu	Gly	Asn 315	Ile	Phe	Thr	Arg	Leu 320
Pro	Leu	Lys	Arg	Met 325	Trp	His	Gln	Ala	Leu 330	Leu	Arg	Ser	Gly	Asp 335	Lys
Val	Arg	Met	Asp 340	Pro	Pro	Cys	Thr	Asn 345	Thr	Thr	Ala	Ala	Ser 350	Thr	Tyr
Leu	Asn	Asn 355	Pro	Tyr	Val	Arg	Lys 360	Ala	Leu	Asn	Ile	Pro 365	Glu	Gln	Leu
Pro	Gln 370	Trp	Asp	Met	Cys	Asn 375	Phe	Leu	Val	Asn	Leu 380	Gln	Tyr	Arg	Arg
Leu 385	Tyr	Arg	Ser	Met	Asn 390	Ser	Gln	туг	Leu	Lys 395	Leu	Leu	Ser	Ser	Gln 400
Lys	Tyr	Gln	Ile	Leu 405	Leu	Tyr	Asn	Gly	Asp 410	Val	Asp	Met	Ala	Cys 415	Asn
Phe	Met	Gly	Asp 420	Glu	Trp	Phe	Val	Asp 425	Ser	Leu	Asn	Gln	Lys 430	Met	Glu
Val	Gln	Arg 435	Arg	Pro	Trp	Leu	Val 440	Lys	Tyr	Gly	Asp	Ser 445	Gly	Glu	Gln
Ile	Ala 450	Gly	Phe	Val	Lys	Glu 455	Phe	Ser	His	Ile	Ala 460	Phe	Leu	Thr	Ile
Lys 465	Gly	Ala	Gly	His	Met 470	Val	Pro	Thr	Asp	Lys 475	Pro	Leu	Ala	Ala	Phe 480
Thr	Met	Phe	Ser	Arg 485	Phe	Leu	Asn	Lys	Gln 490	Pro	Tyr				

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1 5 10 15													
la Arg Thr Cys Ser Gln Ala Gly Pro Ala Ser His Ala Glu Ser Tyr													
20 25 30													
20 23 30													
on Dan Dan Dan Clu Mun Lou Lou Com Clu Clu Clu Ave Lou Ale Man													
sn Pro Pro Pro Glu Tyr Leu Leu Ser Glu Glu Glu Arg Leu Ala Trp	,												
35 40 45													
lu Gln Gln Glu Pro Gly Glu Arg Lys Leu Ser Phe Leu Pro Arg Lys	•												
50 55 60													
he Pro Ser Leu Arg Ala Val Pro Ala Tyr Gly Arg Phe Ile Gln Glu	L												
65 70 75 80	ŀ												
rg Phe Glu Arg Cys Leu Asp Leu Tyr Leu Cys Pro Arg Gln Arg Lys	;												
85 90 95													
et Arg Val Asn Val Asp Pro Glu Asp Leu Ile Pro Lys Leu Pro Arg	Ţ												
100 105 110													
ro Arg Asp Leu Gln Pro Phe Pro Thr Cys Gln Ala Leu Val Tyr Arg	ı												
115 120 125													
ly His Ser Asp Leu Val Arg Cys Leu Ser Val Ser Pro Gly Gly Gln	ı												
130 135 140													
rp Leu Val Ser Gly Ser Asp Asp Gly Ser Leu Arg Leu Trp Glu Val													
45 150 155 160													
130 133 100													
la Thr Ala Arg Cys Val Arg Thr Val Pro Val Gly Gly Val Val Lys													
165 170 175													
103 170 173													
ow Ital Bla Man has Don Con Don Bla Ital Gue Yeu Ital Bla Bla Bla													
er Val Ala Trp Asn Pro Ser Pro Ala Val Cys Leu Val Ala Ala Ala	•												
180 185 190													
al Glu Asp Ser Val Leu Leu Leu Asn Pro Ala Leu Gly Asp Arg Leu													
195 200 205													
al Ala Gly Ser Thr Asp Gln Leu Leu Ser Ala Phe Val Pro Pro Glu													
210 215 220													
,													
lu Pro Pro Leu Gln Pro Ala Arg Trp Leu Glu Ala Ser Glu Glu Glu													
25 230 235 240													
rg Gln Val Gly Leu Arg Leu Arg Ile Cys His Gly Lys Pro Val Thr													

816

				245					250					255	
Gln	Val	Thr	Trp 260	His	Gly	Arg	Gly	Asp 265	Tyr	Leu	Ala	Val	Val 270	Leu	Ala
Thr	Gln	Gly 275	His	Thr	Gln	Val	Leu 280	Ile	His	Gln	Leu	Ser 285	Arg	Arg	Arg
Ser	Gln 290	Ser	Pro	Phe	Arg	Arg 295	Ser	His	Gly	Gln	Val 300	Gln	Arg	Val	Ala
Phe 305	His	Pro	Ala	Arg	Pro 310	Phe	Leu	Leu	Val	Ala 315	Ser	Gln	Arg	Ser	Val 320
Arg	Leu	Tyr	His	Leu 325	Leu	Arg	Gln	Glu	Leu 330	Thr	Lys	Lys	Leu	Met 335	Pro
Asn	Cys	Lys	Trp 340	Val	Ser	Ser	Leu	Ala 345	Val	His	Pro	Ala	Gly 350	Asp	Asn
Val	Ile	Cys 355	Gly	Ser	Tyr	Asp	Ser 360	Lys	Leu	Val	Trp	Phe 365	Asp	Leu	Asp
Leu	Ser 370	Thr	Lys	Pro	Tyr	Arg 375	Met	Leu	Arg	His	His 380	Lys	Lys	Ala	Leu
Arg 385	Ala	Val	Ala	Phe	His 390	Pro	Arg	Tyr	Pro	Leu 395	Phe	Ala	Ser	Gly	Ser 400
Asp	Asp	Gly	Ser	Val 405	Ile	Val	Cys	His	Gly 410	Met	Val	Tyr	Asn	Asp 415	Leu
Leu	Gln	Asn	Pro 420	Leu	Leu	Val	Pro	Val 425	Lys	Val	Leu	Lys	Gly 430	His	Val
Leu	Thr	Arg 435	Asp	Leu	Gly	Val	Leu 440	Asp	Val	Ile	Phe	His 445	Pro	Thr	Gln
Pro	Trp 450	Val	Phe	Ser	Ser	Gly 455	Ala	Asp	Gly	Thr	Val 460	Arg	Leu	Phe	Thr

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<210> 776

<211> 339

<212> PRT

<213> Homo sapiens

817

<401)> 7 ⁻	76													
			Ser	Ser 5	Phe	Pro	Ala	Thr	Arg 10	Asn	Arg	Thr	Val	Gly 15	Thr
Ile	Ser	Lys	His 20	Leu	Asp	Trp	His	Arg 25	Lys	Glu	Glu	Lys	Glu 30	His	Leu
Lys	Gly	Val 35	Gln	Asp	Pro	Gln	His 40	Glu	Arg	Ile	Ile	Thr 45	Val	Ser	Thr
Asn	Gly 50	Ser	Ile	His	Ser	Pro 55	Arg	Phe	Pro	His	Thr 60	Туг	Pro	Arg	Asn
Thr 65	Val	Leu	Val	Trp	Arg 70	Leu	Val	Ala	Val	Glu 75	Glu	Asn	Val	Trp	Ile 80
Gln	Leu	Thr	Phe	Asp 85	Glu	Arg	Phe	Gly	Leu 90	Glu	Asp	Pro	Glu	Asp 95	Asp
Ile	Сув	Lys	туr 100	Asp	Phe	Val	Glu	Val 105	Glu	Glu	Pro	Ser	Asp 110	Gly	Thr
Ile	Leu	Gly 115	Arg	Trp	Cys	Gly	ser 120	Gly	Thr	Val	Pro	Gly 125	Lys	Gln	Ile
Ser	Lys 130	Gly	Asn	Gln	Ile	Arg 135	Ile	Arg	Phe	Val	Ser 140	Asp	Glu	туr	Phe
Pro 145	Ser	Glu	Pro	Gly	Phe 150	Cys	Ile	His	туr	Asn 155	Ile	Val	Met	Pro	Gln 160
Phe	Thr	Glu	Ala	Val 165	Ser	Pro	Ser	Val	Leu 170	Pro	Pro	Ser	Ala	Leu 175	Pro
Leu	Asp	Leu	Leu 180	Asn	Asn	Ala	Ile	Thr 185	Ala	Phe	Ser	Thr	Leu 190	Glu	Asp
Leu	Ile	Arg 195	Tyr	Leu	Glu	Pro	Glu 200	Arg	Trp	Gln	Leu	Asp 205	Leu	Glu	Asp
Leu	Туг 210	Arg	Pro	Thr	Trp	Gln 215	Leu	Leu	Gly	Lys	Ala 220	Phe	Val	Phe	Gly
Arg 225	Lys	Ser	Arg	Val	Val 230	Asp	Leu	Asn	Leu	Leu 235	Thr	Glu	Glu	Val	Arg 240
Leu	Tyr	Ser	Cys	Th <i>r</i> 245	Pro	Arg	Asn	Phe	Ser 250	Val	Ser	Ile	Arg	Glu 255	Glu
Leu	Lys	Arg	Thr	Asp	Thr	Ile	Phe	Trp 265	Pro	Gly	Cys	Leu	Leu 270	Val	Lys

: :

818

Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu His Asn Cys Asn Glu Cys 275 280 Gln Cys Val Pro Ser Lys Val Thr Lys Lys Tyr His Glu Val Leu Gln 295 Leu Arg Pro Lys Thr Gly Val Arg Gly Leu His Lys Ser Leu Thr Asp 310 315 Val Ala Leu Glu His His Glu Glu Cys Asp Cys Val Cys Arg Gly Ser 325 Thr Gly Gly <210> 777 <211> 194 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (155) <223> Xaa equals any of the naturally occurring L-amino acids Pro Arg Arg Phe Gln Arg Gly Gly Ser Thr Pro Arg Val Gly Val Cys Ala Arg Pro Gly Pro Xaa Gly His Val Ala Pro Gly Gly Glu Arg Met Ser Phe Arg Gly Gly Gly Arg Gly Gly Phe Asn Arg Gly Gly Gly Gly Gly Phe Asn Arg Gly Gly Ser Ser Asn His Phe Arg Gly Gly

55

70

65

Gly Gly Gly Gly Gly Asn Phe Arg Gly Gly Arg Gly Gly Phe

Gly Arg Gly Gly Arg Gly Gly Phe Asn Lys Gly Gln Asp Gln Gly

819

 Pro
 Pro
 Glu
 Arg
 Val
 Val
 Leu
 Leu
 Glu
 Phe
 Leu
 His
 Pro
 Cys
 Glu

 Asp
 Asp
 Ile
 Val
 Cys
 Lys
 Cys
 Thr
 Thr
 Asp
 Glu
 Asn
 Lys
 Val
 Pro
 Tyr

 115
 120
 120
 125
 125
 125
 125

Phe Asn Ala Pro Val Tyr Leu Glu Asn Lys Glu Gln Ile Gly Lys Val 130 135 140

Asp Glu Ile Phe Gly Gln Leu Arg Asp Phe Xaa Phe Ser Val Lys Leu 145 150 155 160

Ser Glu Asn Met Lys Ala Ser Ser Phe Lys Lys Leu Gln Lys Phe Tyr 165 170 175

Ile Asp Pro Tyr Lys Leu Leu Pro Leu Gln Arg Trp Trp Gln Arg Arg 180 185 190

Trp Phe

<210> 778

<211> 117

<212> PRT

<213> Homo sapiens

<400> 778

Ala Gly Ala Val Ile Ile Gly Phe Arg Ser Lys Ile Lys Asn Ala Leu 1 5 10 15

Ala His Phe Leu Pro Gln Gly Thr Pro Thr Pro Leu Ile Pro Ile Leu 20 25 30

Val Ile Ile Glu Thr Ile Ser Leu Leu Ile Gln Pro Ile Ala Leu Ala 35 40 45

Val Arg Leu Thr Ala Asn Ile Thr Ala Gly His Leu Leu Met His Leu 50 60

Ile Gly Ser Ala Thr Leu Ala Ile Ser Thr Ile Asn Leu Pro Ser Thr 65 70 75 80

Leu Ile Ile Phe Thr Ile Leu Ile Leu Chr Ile Leu Glu Ile Ala 85 90 95

Val Ala Leu Ile Gln Ala Tyr Val Phe Thr Leu Leu Val Ser Leu Tyr 100 105 110

Leu His Asp Asn Thr 115

<210> 779 <211> 429 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (388) <223> Xaa equals any of the naturally occurring L-amino acids <400> 779 Gly Gly Arg Thr Xaa Ser Ser Pro Glu Lys Asp Pro Xaa Ala Arg Val 10 Pro Ser Ser Gly Phe Pro Asn Pro Gly Asp Ser Ala Pro Gly Arg Cys 20

20 25 30

Tyr Gly Arg His Phe His Ser Val Pro Gly Gly Gln Arg Ser Arg Arg 35 40 45

Ser Pro Val Ala Gly Gln His Gly Glu Arg Pro Gln Pro Gly Leu Leu 50 55 60

Gln Tyr Lys Ala Asp Ile Asn Ala Val Asn Glu His Gly Asn Val Pro 65 70 75 80

Leu His Tyr Ala Cys Phe Trp Gly Gln Asp Gln Val Ala Glu Asp Leu 85 90 95

Val Ala Asn Gly Ala Leu Val Ser Ile Cys Asn Lys Tyr Gly Glu Met 100 105 110

Pro Val Asp Lys Ala Lys Ala Pro Leu Arg Glu Leu Leu Arg Glu Arg 115 120 125

Ala Glu Lys Met Gly Gln Asn Leu Asn Arg Ile Pro Tyr Lys Asp Thr

	130					135					140				
Phe 145	Trp	Lys	Gly	Thr	Thr 150	Arg	Thr	Arg	Pro	Arg 155	Asn	Gly	Thr	Leu	Asn 160
Lys	His	Ser	Gly	Ile 165	Asp	Phe	Lys	Gln	Leu 170	Asn	Phe	Leu	Thr	Lys 175	Leu
Asn	Glu	Asn	His 180	Ser	Gly	Glu	Leu	Trp 185	Lys	Gly	Arg	Trp	Gln 190	Gly	Asn
Asp	Ile	Val 195	Val	Lys	Val	Leu	Lys 200	Val	Arg	Asp	Trp	Ser 205	Thr	Arg	Lys
Ser	Arg 210	Asp	Phe	Asn	Glu	Glu 215	Cys	Pro	Arg	Leu	Arg 220	Ile	Phe	Ser	His
Pro 225	Asn	Val	Leu	Pro	Val 230	Leu	Gly	Ala	Суѕ	Gln 235	Ser	Pro	Pro	Ala	Pro 240
His	Pro	Thr	Leu	11e 245	Thr	His	Trp	Met	Pro 250	Tyr	Gly	Ser	Leu	Tyr 255	Asn
Val	Leu	His	Glu 260	Gly	Thr	Asn	Phe	Val 265	Val	Asp	Gln	Ser	Gln 270	Ala	Val
Lys	Phe	Ala 275	Leu	Asp	Met	Ala	Arg 280	Gly	Met	Ala	Phe	Leu 285	His	Thr	Leu
Glu	Pro 290	Leu	Ile	Pro	Arg	His 295	Ala	Leu	Asn	Ser	Arg 300	Ser	Val	Met	Ile
Asp 305	Glu	Asp	Met	Thr	Ala 310	Arg	Ile	Ser	Met	Ala 315	Asp	Val	Lys	Phe	Ser 320
Phe	Gln	Cys	Pro	Gly 325	Arg	Met	Tyr	Ala	Pro 330	Ala	Trp	Val	Ala	Pro 335	Glu
Ala	Leu	Gln	Lys 340	Lys	Pro	Glu	Asp	Thr 345	Asn	Arg	Arg	Ser	Ala 350	Asp	Met
Trp	Ser	Phe 355	Ala	Val	Leu	Leu	Trp 360	Glu	Leu	Val	Thr	Arg 365	Glu	Val	Pro
Phe	Ala 370	Asp	Leu	Ser	Asn	Met 375	Glu	Ile	Gly	Met	Lys	Val	Ala	Leu	Glu
385		-	Xaa		390			-		395				_	400
Leu	Met	Lys	Ile	Cys	Met	Asn	Glu	Asp	Pro	Ala	Lys	Arg	Pro	Lys	Phe

822

405 410 415

Asp Met Ile Val Pro Ile Leu Glu Lys Met Gln Asp Lys 420 425

<210> 780

<211> 793

<212> PRT

<213> Homo sapiens

<400> 780

Gly Ser Leu Ala Ala Arg Pro Arg His Thr Arg Ser Pro Gly Leu Ser 1 10 15

Ala Ser Ala Gly Glu Thr Ala Met Ala Gln Trp Asn Gln Leu Gln Gln 20 25 30

Leu Asp Thr Arg Tyr Leu Glu Gln Leu His Gln Leu Tyr Ser Asp Ser 35 40 45

Phe Pro Met Glu Leu Arg Gln Phe Leu Ala Pro Trp Ile Glu Ser Gln 50 60

Asp Trp Ala Tyr Ala Ala Ser Lys Glu Ser His Ala Thr Leu Val Phe 65 70 75 80

His Asn Leu Leu Gly Glu Ile Asp Gln Gln Tyr Ser Arg Phe Leu Gln 85 90 95

Glu Ser Asn Val Leu Tyr Gln His Asn Leu Arg Arg Ile Lys Gln Phe 100 105 110

Leu Gln Ser Arg Tyr Leu Glu Lys Pro Met Glu Ile Ala Arg Ile Val 115 120 125

Ala Arg Cys Leu Trp Glu Glu Ser Arg Leu Leu Gln Thr Ala Ala Thr 130 135 140

Ala Ala Gln Gln Gly Gly Gln Ala Asn His Pro Thr Ala Ala Val Val 145 150 155 160

Thr Glu Lys Gln Gln Met Leu Glu Gln His Leu Gln Asp Val Arg Lys 165 . 170 175

Arg Val Gln Asp Leu Glu Gln Lys Met Lys Val Val Glu Asn Leu Gln 180 185 190

Asp Asp Phe Asp Phe Asn Tyr Lys Thr Leu Lys Ser Gln Gly Asp Met 195 200 205

Gln	Asp 210	Leu	Asn	Gly	Asn	215	Gln	Ser	Val	Thr	Arg 220	Gln	Lys	Met	GIn
Gln 225	Leu	Glu	Gln	Met	Leu 230	Thr	Ala	Leu	Asp	Gln 235	Met	Arg	Arg	Ser	Ile 240
Val	Ser	Glu	Leu	Ala 245	Gly	Leu	Leu	Ser	Ala 250	Met	Glu	Tyr	Val	Gln 255	Lys
Thr	Leu	Thr	Asp 260	Glu	Glu	Leu	Ala	Asp 265	Trp	Lys	Arg	Arg	Gln 270	Gln	Ile
Ala	Cys	Ile 275	Gly	Gly	Pro	Pro	Asn 280	Ile	Cys	Leu	Asp	Arg 285	Leu	Glu	Asn
Trp	Ile 290	Thr	Ser	Leu	Ala	Glu 295	Ser	Gln	Leu	Gln	Thr 300	Arg	Gln	Gln	Ile
Lys 305	Lys	Leu	Glu	Glu	Leu 310	Gln	Gln	Lys	Val	Ser 315	Tyr	Lys	Gly	Asp	Pro 320
Ile	Val	Gln	His	Arg 325	Pro	Met	Leu	Glu	Glu 330	Arg	Ile	Val	Glu	Leu 335	Phe
Arg	Asn	Leu	Met 340	Lys	Ser	Ala	Phe	Val 345	Val	Glu	Arg	Gln	Pro 350	Cys	Met
Pro	Met	His 355	Pro	Asp	Arg	Pro	Leu 360	Val	Ile	Lys	Thr	Gly 365	Val	Gln	Phe
Thr	Thr 370	Lys	Val	Arg	Leu	Leu 375	Val	Lys	Phe	Pro	Glu 380	Leu	Asn	Tyr	Gln
Leu 385	Lys	Ile	Lys	Val	Cys 390	Ile	Asp	Lys	Asp	Ser 395	Gly	Asp	Val	Ala	Ala 400
Leu	Arg	Gly	Ser	Arg 405	Lys	Phe	Asn	Ile	Leu 410	Gly	Thr	Asn	Thr	Lys 415	Val
Met	Asn		Glu 420	Glu	Ser		Asn			Leu	Ser		Glu 430	Phe	Lys
His	Leu	Thr 435	Leu	Arg	Glu	Gln	Arg 440	Cys	Gly	Asn	Gly	Gly 445	Arg	Ala	Asn
_	Asp 450					455					460				
Glu 465	Thr	Glu	Val	Tyr	His 470	Gln	Gly	Leu	Lys	11e 475	Asp	Leu	Glu	Thr	His 480

Ser	Leu	Pro	Val	Val 485	Val	Ile	Ser	Asn	Ile 490	Cys	Gln	Met	Pro	Asn 495	Ala
Trp	Ala	Ser	Ile 500	Leu	Trp	туг	Asn	Met 505	Leu	Thr	Asn	Asn	Pro 510	Lys	Asn
Val	Asn	Phe 515	Phe	Thr	Lys	Pro	Pro 520	Ile	Gly	Thr	Trp	Asp 525	Gln	Val	Ala
Glu	Val 530	Leu	Ser	Trp	Gln	Phe 535	Ser	Ser	Thr	Thr	Lys 540	Arg	Gly	Leu	Ser
Ile 545	Glu	Gln	Leu	Thr	Thr 550	Leu	Ala	Glu	Lys	Leu 555	Leu	Gly	Pro	Gly	Val 560
Asn	Tyr	Ser	Gly	Cys 565	Gln	Ile	Thr	Trp	Ala 570	Lys	Phe	Cys	Lys	Glu 575	Asn
Met	Ala	Gly	Lys 580	Gly	Phe	Ser	Phe	Trp 585	Val	Trp	Leu	Asp	Asn 590	Ile	Ile
Asp	Leu	Val 595	Lys	Lys	Tyr	Ile	Leu 600	Ala	Leu	Trp	Asn	Glu 605	Gly	Tyr	Ile
Met	Gly 610	Phe	Ile	Ser	Lys	Glu 615	Arg	Glu	Arg	Ala	11e 620	Leu	Ser	Thr	Lys
Pro 625	Pro	Gly	Thr	Phe	Leu 630	Leu	Arg	Phe	Ser	Glu 635	Ser	Ser	Lys	Glu	Gly 640
Gly	Val	Thr	Phe	Thr 645	Trp	Val	Glu	Lys	Asp 650	Ile	Ser	Gly	Lys	Thr 655	Gln
Ile	Gln	Ser	Val 660	Glu	Pro	Tyr	Thr	Lys 665	Gln	Gln	Leu	Asn	Asn 670	Met	Ser
Phe	Ala	Glu 675	Ile	Ile	Met	Gly	Туr 680	Lys	Ile	Met	Asp	Ala 685	Thr	Asn	Ile
Leu	Val 690	Ser	Pro	Leu		Tyr 695	Leu	Tyr	Pro	Asp	Ile 700	Pro	Lys	Glu	Glu
Ala 705	Phe	Gly	Lys	Tyr	Cys 710	Arg	Pro	Glu	Ser	Gln 715	Glu	His	Pro	Glu	Ala 720
Asp	Pro	Gly	Ser	Ala 725	Ala	Pro	Tyr	Leu	Lys 730	Thr	Lys	Phe	Ile	Cys 735	Val
Thr	Pro	Thr	Thr 740	Cys	Ser	Asn	Thr	Ile 745	Asp	Leu	Pro	Met	Ser 750	Pro	Arg

Thr Leu Asp Ser Leu Met Gln Phe Gly Asn Asn Gly Glu Gly Ala Glu
755 760 765

Pro Ser Ala Gly Gly Gln Phe Glu Ser Leu Thr Phe Asp Met Glu Leu 770 780

Thr Ser Glu Cys Ala Thr Ser Pro Met 785 790

<210> 781

<211> 338

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (313)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (319)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 781

Val Ser Leu Pro Val Val Pro Ala Ser Phe Ser Phe Pro Pro Cys Pro 1 5 10 15

Ala Ala Gly Pro Gly Gln Pro Gly Ser Gly Trp Gly Gly Val Leu Pro 20 . 25 30

Ser Ser Ser Trp Asp Ile Ala Arg Val Arg Ser Thr Pro Ser Gln Pro 35 40 45

Leu Leu Trp Ser Pro Val Gly Arg Gly Ala Ala Ile Leu Val Ala Arg 50 55 60

Gly Val Ser Arg Ile Arg Arg Val Ser Leu Pro Ser Arg Trp Arg Gly 65 70 75 80

Leu Cys Pro Cys Ser Val Thr Ala Ala Leu Gly Lys Arg Ser Ala Pro 85 90 95

Lys Thr Asp Val Thr Ile Thr Asn Asp Gly Ala Thr Ile Leu Lys Leu 100 105 110

Leu Glu Val Glu His Pro Ala Ala Lys Val Leu Cys Glu Leu Ala Asp 115 120 125

826

rea	130	ASP	ьys	GIU	vai	135	ASP	GTÀ	The	THE	140	Vai	vai	116	116
Ala 145	Ala	Glu	Leu	Leu	Lys 150	Asn	Ala	Asp	Glu	Leu 155	Val	Lys	Gln	Lys	11e
His	Pro	Thr	Ser	Val 165	Ile	Ser	Gly	Tyr	Arg 170	Leu	Ala	Cys	Lys	Glu 175	Ala
Val	Arg	Tyr	Ile 180	Asn	Glu	Asn	Leu	Ile 185	Val	Asn	Thr	Asp	Glu 190	Leu	Gly
Arg	Asp	Cys 195	Leu	Ile	Asn	Ala	Ala 200	Lys	Thr	Ser	Met	Ser 205	Ser	Lys	Ile
Ile	Gly 210	Ile	Asn	Gly	Asp	Phe 215	Phe	Ala	Asn	Met	Val 220	Val	Asp	Ala	Va1
Leu 225	Ala	Ile	Lys	Туr	Thr 230	Asp	Ile	Arg	Gly	Gln 235	Pro	Arg	туr	Pro	Val 240
Asn	Ser	Val	Asn	Ile 245	Leu	Lys	Ala	His	Gly 250	Arg	Ser	Gln	Met	Glu 255	Ser
Met	Leu	Ile	Ser 260	Gly	Туr	Ala	Leu	Asn 265	Суѕ	Val	Val	Gly	Ser 270	Gln	Gly
Met	Pro	Lys 275	Arg	Ile	Val	Asn	Ala 280	Lys	Ile	Ala	Cys	Leu 285	Asp	Phe	Ser
Leu	Gln 290	Lys	Thr	Lys	Met	Lys 295	Leu	Gly	Val	Gln	Val 300	Val	Ile	Thr	Asp
Pro 305	Glu	Lys	Leu	Asp	Gln 310	Ile	Arg	Xaa	Ser	Asn 315	туг	Ser	Val	Xaa	Pro 320
Gly	Pro	Ile	Trp	Lys 325	Val	Lys	Lys	Leu	Leu 330	Lys	Cys	Asn	Val	Gly 335	Thr

<210> 782

Gly Arg

<211> 100

<212> PRT

<213> Homo sapiens

<400> 782

827

Ile Leu His Leu Asn Ala Leu Met Lys Asn Lys Ala Lys Thr Arg Val Leu Gly His Ser Ser Ala Gln Arg Val Pro Gly Asp Gly Arg Pro Leu 25 Ser Pro His Pro Leu Thr Leu Glu Asn Trp Val Phe Ser Gln Tyr Ser 40 Ser Asn Ser Phe Leu Lys Ala Val Glu Pro Leu Tyr Ser Lys Val His Cys Arg Cys Ser Asn Ser Pro Phe Leu Phe Pro Leu Pro Pro Ala Ser 70 Phe Ala Asp Ser Gln Leu Val Met Ser Val Ser Ile Lys Asp Ile Met 90 Leu Leu Arg Phe 100 <210> 783 <211> 312 <212> PRT <213> Homo sapiens <400> 783 Phe Gly Arg Ala Ile Ala Arg Val Thr Gly Asn Pro Val Gln Gly Ala 10 Pro Pro Ser Trp Thr Ser Pro Arg Lys Ile Leu Arg Glu His Arg Ser 25 Ser His Arg Cys His Cys Tyr Cys Arg Tyr Cys Cys Arg Arg Val Cys 40 Thr Ser Arg Pro Ala Ser Val Pro Ala Gly Ala Ser Val Asp Arg Pro Arg Pro Leu Ser Arg Cys Val Arg Thr Pro Val Pro Gly Pro Asp Ala 70 75 Pro Leu Pro Pro Gly Lys Leu Pro Ser His Gln Gln Pro Pro Ser Ala Thr Met Ala Thr Ala Pro Tyr Asn Tyr Ser Tyr Ile Phe Lys Tyr Ile 105

Ile Ile Gly Asp Met Gly Val Gly Lys Ser Cys Leu Leu His Gln Phe

828

115 120 125 Thr Glu Lys Lys Phe Met Ala Asp Cys Pro His Thr Ile Gly Val Glu 135 Phe Gly Thr Arg Ile Ile Glu Val Ser Gly Gln Lys Ile Lys Leu Gln 150 155 Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser 165 170 Tyr Tyr Arg Gly Ala Ala Gly Ala Leu Met Val Tyr Asp Ile Thr Arg 185 Arg Ser Thr Tyr Asn His Leu Ser Ser Trp Leu Thr Asp Ala Arg Asn 195 200 Leu Thr Asn Pro Asn Thr Val Ile Ile Leu Ile Gly Asn Lys Ala Asp 215 Leu Glu Ala Gln Arg Asp Val Thr Tyr Glu Glu Ala Lys Gln Phe Ala 230 235 Glu Glu Asn Gly Leu Leu Phe Leu Glu Ala Ser Ala Lys Thr Gly Glu 245 250 Asn Val Glu Asp Ala Phe Leu Glu Ala Ala Lys Lys Ile Tyr Gln Asn 265 Ile Gln Asp Gly Ser Leu Asp Leu Asn Ala Ala Glu Ser Gly Val Gln 275 280 His Lys Pro Ser Ala Pro Gln Gly Gly Arg Leu Thr Ser Glu Pro Gln 300 Pro Gln Arg Glu Gly Cys Gly Cys 305 <210> 784 <211> 73 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (9)

<220>

829

<221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 784 Arg Gly Pro Ala Leu Arg Ala Ala Xaa Thr Ile Lys Trp Arg Val Leu Gln Pro Ala Pro Ala Ser Glu Arg Glu Met Leu Gly Cys Ser Phe Lys Leu Arg Thr Thr His His Ala Tyr Pro Gly Ala Glu Gly Pro Asp His His Ser Leu Arg Thr Glu Glu Ala Ala Cys Tyr Ser Trp Cys Cys Ile 50 55 Pro Pro Asp Xaa Leu Leu Phe Pro Gly <210> 785 <211> 517 <212> PRT <213> Homo sapiens <400> 785 Gly Lys Arg Glu Gly Ala Gly Glu Arg Asp Gln Gly Arg Arg Arg Gly Glu Ser Arg Glu Gly Trp Ser Phe Gly Glu Ser Leu Trp Lys Met Ala 25 20 . Pro Val Val Thr Gly Lys Phe Gly Glu Arg Pro Pro Pro Lys Arg Leu Thr Arg Glu Ala Met Arg Asn Tyr Leu Lys Glu Arg Gly Asp Gln Thr 55 Val Leu Ile Leu His Ala Lys Val Ala Gln Lys Ser Tyr Gly Asn Glu 65 70 Lys Arg Phe Phe Cys Pro Pro Pro Cys Val Tyr Leu Met Gly Ser Gly 90 Trp Lys Lys Lys Glu Gln Met Glu Arg Asp Gly Cys Ser Glu Gln

Glu Ser Gln Pro Cys Ala Phe Ile Gly Ile Gly Asn Ser Asp Gln Glu

125

120

Met	Gln 130	Gln	Leu	Asn	Leu	Glu 135	Gly	Lys	Asn	Tyr	Cys 140	Thr	Ala	Lys	Thr
Leu 145	туг	Ile	Ser	Asp	Ser 150	Asp	Lys	Arg	Lys	His 155	Phe	Met	Leu	Ser	Val 160
Lys	Met	Phe	Tyr	Gly 165	Asn	Ser	Asp	Asp	Ile 170	Gly	Val	Phe	Leu	Ser 175	Lys
Arg	Ile	Lys	Val 180	Ile	Ser	Lys	Pro	Ser 185	Lys	Lys	Lys	Gln	Ser 190	Leu	Lys
Asn	Ala	Asp 195	Leu	Суѕ	Ile	Ala	Ser 200	Gly	Thr	Lys	Val	Ala 205	Leu	Phe	Asn
Arg	Leu 210	Arg	Ser	Gln	Thr	Val 215	Ser	Thr	Arg	Tyr	Leu 220	His	Val	Glu	Gly
225			His		230				-	235					240
		-	Asp	245				-	250					255	-
			His 260					265					270		
		275	Leu				280					285			
	290		Asp		_	295					300		-	-	
305	_		Lys	_	310		·		-	315	-				320
			Gln	325					330					335	
			Asn 340					345					350	_	_
		355	Thr				360					365			
	370		Pro Leu			375					380				
38 5	ura	MEL	TGU	GIU	390	1111	ату	GTII	Vali	395	THE	FIO	АЗП	ren	400

831

Val Trp Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Cys Gly Glu Ser Met Leu Cys Val Val Pro Asp Ile Ser Ala Phe Arg Glu Gly Trp 425 Arg Trp Val Arg Gln Pro Val Gln Val Pro Val Thr Leu Val Arg Asn 440 Asp Gly Ile Ile Tyr Ser Thr Ser Leu Thr Phe Thr Tyr Thr Pro Glu 455 Pro Gly Pro Arg Pro His Cys Ser Ala Ala Gly Ala Ile Leu Arg Ala Asn Ser Ser Gln Val Pro Pro Asn Glu Ser Asn Thr Asn Ser Glu Gly 485 490 Ser Tyr Thr Asn Ala Ser Thr Asn Ser Thr Ser Val Thr Ser Ser Thr 505 Ala Thr Val Val Ser 515 <210> 786 <211> 211 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (122) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (199) <223> Xaa equals any of the naturally occurring L-amino acids Pro Cys Ile Leu Gly Val Glu Arg Arg Met Glu Thr Glu Ser Gly Asn 10 Gln Glu Lys Val Met Glu Glu Glu Ser Thr Glu Lys Lys Glu Val

Glu Lys Lys Lys Arg Ser Arg Val Lys Gln Val Leu Ala Asp Ile Ala
35 40 45 .

832

Lys Gln Val Asp Phe Trp Phe Gly Asp Ala Asn Leu His Lys Asp Arg Phe Leu Arg Glu Gln Ile Glu Lys Ser Arg Asp Gly Tyr Val Asp Ile Ser Leu Leu Val Ser Phe Asn Lys Met Lys Lys Leu Thr Thr Asp Gly 90 Lys Leu Ile Ala Arg Ala Leu Arg Ser Ser Ala Val Val Glu Leu Asp 100 105 Leu Glu Gly Thr Arg Ile Arg Arg Lys Xaa Pro Leu Gly Glu Arg Pro 120 Lys Asp Glu Asp Glu Arg Thr Val Tyr Val Glu Leu Leu Pro Lys Asn 130 135 Val Asn His Ser Trp Ile Glu Arg Val Phe Gly Lys Cys Gly Asn Val 145 155 Val Tyr Ile Ser Ile Pro His Tyr Lys Ser Thr Gly Asp Pro Lys Gly 170 Phe Ala Phe Val Glu Phe Glu Thr Lys Glu Gln Ala Ala Lys Ala Ile 180 Glu Val Ser Pro Asp Pro Xaa Lys Lys Lys Arg Lys Lys Arg Lys Gln 200 205 Val Leu Lys 210 <210> 787 <211> 58 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

833

<220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids His Ser Arg Gly Val Ala Gly Thr Ile Thr Leu Phe Arg Xaa Ser Tyr Ser Ser Ala Val Xaa Xaa Ser Gln Leu Leu His Gln Met Arg Phe Phe 25 Cys Ser Leu Met Phe Phe Gly Tyr Gly Tyr Gly Ile Cys Arg Leu Gly 35 40 Gly Lys Glu Leu Lys Ile Thr Gly Ala Gly <210> 788 <211> 471 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (448) <223> Xaa equals any of the naturally occurring L-amino acids <400> 788 Asn Asp Leu Thr Tyr Asp Met Glu Ile Leu Gln Pro Leu Leu Glu Gln 5 10 Gly Ala Ser Leu Arg Gln Thr Met Thr Tyr Glu Gln Pro Lys Glu Ala 20 Ile Val Ile Arg Lys Lys Ile Glu Asn Leu Thr Ser Ala Val Asn Ser Leu Asn Phe Ile Ile Lys Glu Leu Thr Lys Arg His Asn Leu Leu Arg 55 60 Asn Glu Val Gln Gly Arg Asp Asp Ala Leu Glu Arg Arg Ile Asn Glu Tyr Ala Leu Glu Met Glu Asp Gly Leu Asn Lys Thr Met Thr Ile Ile Asn Asn Ala Ile Asp Phe Ile Gln Asp Asn Tyr Ala Leu Lys Glu Thr 100 105 110

Leu	Ser	Thr 115	Ile	Lys	Asp	Asn	Ser 120	Glu	Ile	His	His	Lys 125	Cys	Thr	Ser
Asp	Met 130	Glu	Thr	Ile	Leu	Thr 135	Phe	Ile	Pro	Gln	Phe 140	His	Arg	Leu	Asn
Asp 145	Ser	Ile	Gln	Thr	Leu 150	Val	Asn	Asp	Asn	Gln 155	Arg	Tyr	Asn	Phe	Val 160
Leu	Gln	Val	Ala	Lys 165	Thr	Leu	Ala	Gly	Ile 170	Pro	Arg	Asp	Glu	Lys 175	Leu
Asn	Gln	Ser	Asn 180	Phe	Gln	Lys	Met	Tyr 185	Gln	Met	Phe	Asn	Glu 190	Thr	Thr
Ser	Gln	Val 195	Arg	Lys	Tyr	Gln	Gln 200	Asn	Met	Ser	His	Leu 205	Glu	Glu	Lys
Leu	Leu 210	Leu	Thr	Thr	Lys	Ile 215	Ser	Lys	Asn	Phe	Glu 220	Thr	Arg	Leu	Gln
Asp 225	Ile	Glu	Ser	Lys	Val 230	Thr	Gln	Thr	Leu	Ile 235	Pro	Tyr	Tyr	Ile	Ser 240
		Lys		245					250					255	
		Val	260					265					270		
		Ser 275					280					285			
	290	Met				295					300				
305		Pro			310					315					320
		Gly		325					330					335	
		Ala	340					345					350		
		Leu 355					360					365			
Pro	Lys 370	Lys	Ile	Asn		Leu 375	Lys	Lys	Pro	Thr	Val 380	Asn	Leu	Thr	Thr

835

Val Leu Ile Gly Arg Thr Gln Arg Asn Thr Asp Asn Ile Ile Tyr Pro 385 390 395 Glu Glu Tyr Ser Ser Cys Ser Arg His Pro Cys Gln Asn Gly Gly Thr 405 410 Cys Ile Asn Gly Arg Thr Ser Phe Thr Cys Ala Cys Arg His Pro Phe 425 Thr Gly Asp Asn Cys Thr Ile Lys Leu Val Glu Glu Asn Ala Leu Xaa 435 440 Gln Ile Phe Pro Lys Asp Leu Thr Asp Met His Pro Trp Trp His Phe 455 460 Leu His Leu Ile Arg Met Glu 465 470 <210> 789 <211> 328 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (66) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (125) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (130) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (135) <223> Xaa equals any of the naturally occurring L-amino acids

<22															
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	2> (•	au - 1	c	v of	+ha	na+	11727	1,, 6	cc.:-	rinc	T 21	mirc	aci	10
-42	J- X	aa e	qual	s an	y or	tne	nac	ural	ту о	CCUF	ring	n-4)	"TIO	aci	45
<22	0>														
	1> S	ITE													
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	2> (•	_		_			_	_						
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-10	0> 7	90													
			Hie	Glv	Glv	Glv	Agn	Ara	Glv	Dhe	Ala	T.em	Glv	Glv	Hic
1	GLY	val	птэ	G1y 5	GLY	GIY	тэр	ALG	10	FIIE	ATA	Leu	GIŞ	15	nis
•				,					10					13	
Glu	Arg	Glu	Pro	Ala	Ser	Gly	Arg	Pro	Gly	Ala	Lys	Xaa	Leu	His	Leu
	_		20			-	,	25	-		-		30		
Leu	Leu	Val	Ala	Glu	Pro	His	Gly	Gln	Glu	Asp	His	Ala	Gly	Gln	Gly
		35					40					45			
				_	_		_		_		_				
Glu		Pro	Arg	Glu	Val		Ala	Arg	Val	Gly	Ala	Ala	Ala	Ala	Arc
	50					55					60				
212	Vaa	Acn	Clu	710	T10	Acn	7-0	Cvc	Tou	wal.	Gly	Dro	720	212	Dro
65	naa	ASP	GIU	116	70	ASP	Arg	Cys	Leu	75	GIY	PIO	Arg	MIG	80
					, 0					, ,					
Ala	Pro	Arg	Asp	Pro	Gly	Asp	Ser	Glu	Glu	Leu	Thr	Arq	Phe	Pro	Gly
		_	-	85	•	•			90			-		95	•
Leu	Arg	Gly	Pro	Thr	Gly	Gln	Lys	Val	Val	Arg	Phe	Gly	Asp	Glu	Asp
			100					105					110		
_	_,	_		_					_					_	
Leu	Thr		Gln	Asp	Glu	His		Ala	Pro	Phe	Ser		Gly	Lys	Glr
		115					120					125			
Ara	Xaa	Ara	Leu	Glu	Phe	Xas	Tle	Ser	ء 1 ھ	T.e.s	Ser	Tle	Gla	G2 11	Dro
9	130	ar 9	neu	GIU	E 116	135	115	SEL	VIG	Ted	140	TIE	GIII	GIU	FIC
											140				
Ser	Asn	Gly	Thr	Ala	Leu	Ser	Xaa	Pro	Arq	Pro	Leu	Ser	Lys	Ala	Ser
145		-4			150	- 			3	155			-1-		160
Gln	Gly	Ser	Gln	Ala	Leu	Lys	Ser	Ser	Gln	Gly	Ser	Arg	Ser	Ser	Ser
				165					170					175	
_											_				
Leu	Asp	Ala		Gly	Pro	Thr	Arg		Glu	Glu	Glu	Ala		Phe	Trp
			180					185					190		

837

Lys Ile Asn Ala Glu Arg Ser Arg Gly Glu Gly Pro Glu Ala Glu Phe 195 200 205 Gln Ser Leu Thr Pro Ser Gln Ile Lys Ser Met Glu Lys Gly Glu Lys 215 Val Leu Pro Pro Cys Tyr Arg Gln Glu Pro Ala Pro Lys Asp Arg Glu 230 235 Ala Lys Val Glu Arg Pro Ser Thr Leu Arg Gln Glu Gln Arg Pro Leu 245 250 Pro Asn Val Ser Thr Glu Arg Glu Arg Pro Gln Pro Val Gln Ala Phe 265 Ser Ser Ala Leu His Glu Ala Ala Pro Ser Gln Leu Glu Gly Lys Leu Pro Ser Pro Asp Val Arg Gln Asp Asp Gly Glu Asp Thr Leu Phe Ser 295 Glu Pro Lys Phe Ala Gln Val Xaa Ser Ser Asn Val Val Leu Xaa Thr 310 315 Gly Phe Asp Phe Leu Asp Asn Trp 325 <210> 790 <211> 142 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (33) <223> Xaa equals any of the naturally occurring L-amino acids

Ala Thr Ile Ala Cys His Leu Asp Pro Arg Val Phe Val Asp Gly Leu

838

50 55 60 Cys Arg Ala Lys Phe Glu Ser Leu Phe Arg Thr Tyr Asp Lys Asp Ile Thr Phe Gln Tyr Phe Lys Ser Phe Lys Arg Val Arg Ile Asn Phe Ser 90 Asn Pro Phe Ser Ala Ala Asp Ala Arg Leu Gln Leu His Lys Thr Glu 100 105 Phe Leu Gly Lys Glu Met Lys Leu Tyr Phe Ala Gln Thr Leu His Ile 120 Gly Ser Ser His Leu Ala Pro Gln Ile Gln Thr Ser Ser Phe 130 135 <210> 791 <211> 322 <212> PRT <213> Homo sapiens Ala Gly Gly Pro Arg Ala Ala His Pro Val Cys Leu Cys Leu Leu Gln Ser Ser Val Leu Ala Leu Val Arg Leu Arg Pro Gly Cys Thr Ala Gly Thr Trp Ala Met Ser Pro His Pro Thr Ala Leu Leu Gly Leu Val Leu 35 40 Cys Leu Ala Gln Thr Ile His Thr Gln Glu Glu Asp Leu Pro Arg Pro Ser Ile Ser Ala Glu Pro Gly Thr Val Ile Pro Leu Gly Ser His Val Thr Phe Val Cys Arg Gly Pro Val Gly Val Gln Thr Phe Arg Leu Glu 85 90 Arg Glu Ser Arg Ser Thr Tyr Asn Asp Thr Glu Asp Val Ser Gln Ala 105 Ser Pro Ser Glu Ser Glu Ala Arg Phe Arg Ile Asp Ser Val Ser Glu 115 Gly Asn Ala Gly Pro Tyr Arg Cys Ile Tyr Tyr Lys Pro Pro Lys Trp

135

839

Ser 145	Glu	Gln	Ser	Asp	туr 150	Leu	Glu	Leu	Leu	Val 155	Lys	Glu	Thr	Ser	Gly 160
Gly	Pro	Asp	Ser	Pro 165	Asp	Thr	Glu	Pro	Gly 170	Ser	Ser	Ala	Gly	Pro 175	Thr
Gln	Arg	Pro	Ser 180	Asp	Asn	Ser	His	Asn 185	Glu	His	Ala	Pro	Ala 190	Ser	Gln
Gly	Leu	Lys 195	Ala	Glu	His	Leu	Tyr 200	Ile	Leu	Ile	Gly	Val 205	Ser	Val	Val
Phe	Leu 210	Phe	Cys	Leu	Leu	Leu 215	Leu	Val	Leu	Phe	Cys 220	Leu	His	Arg	Gln
Asn 225	Gln	Ile	Lys	Gln	Gly 230	Pro	Pro	Arg	Ser	Lys 235	Asp	Glu	Glu	Gln	Lys 240
Pro	Gln	Gln	Arg	Pro 245	Asp	Leu	Ala	Val	Asp 250	Val	Leu	Glu	Arg	Thr 255	Ala
Asp	Lys	Ala	Thr 260	Val	Asn	Gly	Leu	Pro 265	Glu	Lys	Asp	Arg	Glu 270	Thr	Asp
Thr	Ser	Ala 275	Leu	Ala	Ala	Gly	Ser 280	Ser	Gln	Glu	Val	Thr 285	Tyr	Ala	Gln
Leu	Asp 290	His	Trp	Ala	Leu	Thr 295	Gln	Arg	Thr	Ala	Arg 300	Ala	Val	Ser	Pro
Gln 305	Ser	Thr	Lys	Pro	Met 310	Ala	Glu	Ser	Ile	Thr 315	туr	Ala	Ala	Val	Ala 320
Arg	His														
<210)> 79	12													
	l> 97														
	?> PF														
			apie	ene.											
			, up 10	- 1											

Leu Val Leu Val Cys Thr Met Ala Leu Cys Ser Cys Ala Gln Val Gly 20 25 30

Pro Leu Leu Cys Leu Pro Ser Ile Met Lys Gly Leu Ala Ala Ala Leu

<400> 792

840

Thr Asn Lys Glu Leu Cys Cys Leu Val Tyr Thr Ser Trp Gln Ile Pro 35 40 45

Gln Lys Phe Ile Val Asp Tyr Ser Glu Thr Ser Pro Gln Cys Pro Lys
50 55 60

Pro Gly Val Ile Leu Leu Thr Lys Arg Gly Arg Gln Ile Cys Ala Asp 65 70 75 80

Pro Asn Lys Lys Trp Val Gln Lys Tyr Ile Ser Asp Leu Lys Leu Asn 85 90 95

Ala

<210> 793

<211> 267

<212> PRT

<213> Homo sapiens

<400> 793

Pro Pro Gly Leu Pro Gly Phe Gly Thr Ser His Thr Phe Ala Pro Ala 1 5 10 15

Ala Met Thr Leu Ser Pro Leu Leu Leu Phe Leu Pro Pro Leu Leu Leu 20 25 30

Leu Leu Asp Val Pro Thr Ala Ala Val Gln Ala Ser Pro Leu Gln Ala 35 40 45

Leu Asp Phe Phe Gly Asn Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn 50 55 60

Leu Tyr Leu Arg Gly Pro Leu Lys Lys Ser Asn Ala Pro Leu Val Asn 65 70 75 80

Val Thr Leu Tyr Tyr Glu Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu
85 90 95

Ile Arg Glu Leu Phe Pro Thr Trp Leu Leu Val Met Glu Ile Leu Asn 100 105 110

Val Thr Leu Val Pro Tyr Gly Asn Ala Gln Glu Gln Asn Val Ser Gly
115 120 125

Arg Trp Glu Phe Lys Cys Gln His Gly Glu Glu Glu Cys Lys Phe Asn 130 135 140

Lys Val Glu Ala Cys Val Leu Asp Glu Leu Asp Met Glu Leu Ala Phe

841

155 145 150 160 Leu Thr Ile Val Cys Met Glu Glu Phe Glu Asp Met Glu Arg Ser Leu 170 Pro Leu Cys Leu Gln Leu Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly Asp Arg Gly Met Gln Leu Met His Ala Asn 195 200 Ala Gln Arg Thr Asp Ala Leu Gln Pro Pro His Glu Tyr Val Pro Trp 215 Val Thr Val Asn Gly Lys Pro Leu Glu Asp Gln Thr Gln Leu Leu Thr 230 235 Leu Val Cys Gln Leu Tyr Gln Gly Lys Lys Pro Asp Val Cys Pro Ser 250 Ser Thr Ser Ser Leu Arg Ser Val Cys Phe Lys <210> 794 <211> 297 <212> PRT <213> Homo sapiens <400> 794 Gln Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Ala Ala Ser .5 Thr Arg Pro Gln Phe Leu Ile Thr Val Pro Val Leu Thr Val Ile Asn 25 Tyr Arg Pro His Asn Met Arg Pro Glu Asp Arg Met Phe His Ile Arg 40 Ala Val Ile Leu Arg Ala Leu Ser Leu Ala Phe Leu Leu Ser Leu Arg Gly Ala Gly Ala Ile Lys Ala Asp His Val Ser Thr Tyr Ala Ala Phe 70 Val Gln Thr His Arg Pro Thr Gly Glu Phe Met Phe Glu Phe Asp Glu 90 Asp Glu Met Phe Tyr Val Asp Leu Asp Lys Lys Glu Thr Val Trp His 105 100

842

Leu Glu Glu Phe Gly Gln Ala Phe Ser Phe Glu Ala Gln Gly Gly Leu Ala Asn Ile Ala Ile Leu Asn Asn Leu Asn Thr Leu Ile Gln Arg 135 Ser Asn His Thr Gln Ala Thr Asn Asp Pro Pro Glu Val Thr Val Phe 150 155 Pro Lys Glu Pro Val Glu Leu Gly Gln Pro Asn Thr Leu Ile Cys His 170 Ile Asp Lys Phe Phe Pro Pro Val Leu Asn Val Thr Trp Leu Cys Asn 185 Gly Glu Leu Val Thr Glu Gly Val Ala Glu Ser Leu Phe Leu Pro Arg 195 200 205 Thr Asp Tyr Ser Phe His Lys Phe His Tyr Leu Thr Phe Val Pro Ser 215 Ala Glu Asp Phe Tyr Asp Cys Arg Val Glu His Trp Gly Leu Asp Gln 230 235 Pro Leu Lys His Trp Glu Ala Gln Glu Pro Ile Gln Met Pro Glu 245 Thr Thr Glu Thr Val Leu Cys Ala Leu Gly Leu Val Leu Gly Leu Val 265 Gly Ile Ile Val Gly Thr Val Leu Ile Ile Lys Ser Leu Arg Ser Gly 275 280 His Asp Pro Arg Ala Gln Gly Thr Leu 290 295 <210> 795 <211> 113 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (39)

<220> <221> SITE

PCT/US00/05918 WO 00/55180

843

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Ser Gln Cys Met Arg Gly Val Arg Leu Val Glu Gly Ile Leu His Ala

Pro Asp Ala Gly Trp Gly Asn Leu Val Tyr Val Val Asn Tyr Pro Lys 75

55

Asp	Asn	Lys	Arg	Lys 85	Met	Asp	Glu	Thr	Asp 90	Ala	Ser	Ser	Ala	Val 95	Lys
Val	Lys	Arg	Ala 100	Val	Gln	Lys	Thr	Ser 105	Asp	Leu	Ile	Val	Leu 110	Gly	Leu
Pro	Trp	Lys 115	Thr	Thr	Glu	Gln	Asp 120	Leu	Lys	Glu	Tyr	Phe 125	Ser	Thr	Phe
Gly	Glu 130	Val	Leu	Met	Val	Gln 135	Val	Lys	Lys	Asp	Leu 140	Lys	Thr	Gly	His
Ser 145	Lys	Gly	Phe	Gly	Phe 150	Val	Arg	Phe	Thr	Glu 155	Tyr	Glu	Thr	Gln	Val 160
ГÀЗ	Val	Met	Ser	Gln 165	Arg	His	Met	Ile	Asp 170	Gly	Arg	Trp	Cys	Asp 175	Cys
Lys	Leu	Pro	Asn 180	Ser	Lys	Gln	Ser	Gln 185	Asp	Glu	Pro	Leu	Arg 190	Ser	Arg
Lys	Val	Phe 195	Val	Gly	Arg	Cys	Thr 200	Glu	Asp	Met	Thr	Glu 205	Asp	Glu	Leu
Arg	Glu 210	Phe	Phe	Ser	Gln	Tyr 215	Gly	Asp	Val	Met	Asp 220	Val	Phe	Ile	Pro
Lys 225	Pro	Phe	Arg	Ala	Phe 230	Ala	Phe	Val	Thr	Phe 235	Ala	Asp	Asp	Gln	Ile 240
Ala	Gln	Ser	Leu	Cys 245	Gly	Glu	Asp	Leu	Ile 250	Ile	Lys	Gly	Ile	Ser 255	Val
His	Ile	Ser	Asn 260	Ala	Glu	Pro	Lys	His 265	Asn	Ser	Asn	Arg	Gln 270	Leu	Glu
Arg	Ser	Gly 275	Arg	Phe	Gly	Gly	Asn 280	Pro	Gly	Gly	Phe	Gly 285	Asn	Gln	Gly
Gly	Phe 290	Gly	Asn	Ser	Arg	Gly 295	Gly	Gly	Ala	Gly	Leu 300	Gly	Asn	Asn	Gln
Gly 305	Ser	Asn	Met	Gly	Gly 310	Gly	Met	Asn	Phe	Gly 315	Ala	Phe	Ser	Ile	Asn 320
Pro	Ala	Met	Met	Ala 325	Ala	Ala	Gln	Ala	Ala 330	Leu	Gln	Ser	Ser	Trp 335	Gly
Met	Met	Gly	Met 340	Leu	Ala	Ser	Gln	Gln 345	Asn	Gln	Ser	Gly	Pro 350	Ser	Gly

845

Asn Asn Gln Asn Gln Gly Asn Met Gln Arg Glu Pro Asn Gln Ala Phe

```
Gly Ser Gly Asn Asn Ser Tyr Ser Gly Ser Asn Ser Gly Ala Ala Ile
                        375
Gly Trp Gly Ser Ala Ser Asn Ala Gly Ser Gly Ser Gly Phe Asn Gly
385
                    390
                                                             400
                                         395
Gly Phe Gly Ser Ser Met Asp Ser Lys Ser Ser Gly Trp Gly Met
                405
                                    410
<210> 797
<211> 609
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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	0> 79 Thr		Leu	Arg 5	Trp	Leu	Leu	Arg	Gly 10	Gln	Glu	Lys	Arg	Thr 15	Lei
Gly	Ser	Ser	Gln 20	Ser	Asp	Phe	Leu	Thr 25	Pro	Pro	Val	Gly	Gly 30	Ala	Pro
Trp	Ala	Val 35	Ala	Thr	Thr	Val	Val 40	Met	Tyr	Pro	Pro	Pro 45	Pro	Pro	Pro
Pro	His 50	Arg	Asp	Phe	Ile	Ser 55	Val	Thr	Leu	Ser	Phe 60	Gly	Glu	Ser	туг
Asp 65	Asn	Ser	Lys	Ser	Trp 70	Arg	Arg	Arg	Ser	Cys 75	Trp	Arg	Lys	Trp	Lys 80
Gln	Leu	Ser	Arg	Leu 85	Gln	Arg	Asn	Met	Ile 90	Leu	Phe	Leu	Leu	Ala 95	Phe
Leu	Leu	Phe	Cys 100	Gly	Leu	Leu	Phe	Tyr 105	Ile	Asn	Leu	Ala	Asp 110	His	Trp
Lys	Ala	Leu 115	Ala	Phe	Arg	Leu	Glu 120	Glu	Glu	Gln	Lys	Met 125	Arg	Pro	Glu
Ile	Ala 130	Gly	Leu	Lys	Pro	Ala 135	Asn	Pro	Pro	Val	Leu 140	Pro	Ala	Pro	Glr
Lys 145	Ala	Asp	Thr	Asp	Pro 150	Glu	Asn	Leu	Pro	Glu 155	Ile	Ser	Ser	Gln	Lys
Thr	Gln	Arg	His	11e 165	Gln	Arg	Gly	Pro	Xaa 170	His	Leu	Gln	Ile	Arg 175	
Pro	Ser	Gln	Asp 180	Leu	Lys	Asp	Gly	Thr 185	Gln	Glu	Glu	Ala	Thr 190	Lys	Arg
Gln	Glu	Ala 195	Pro	Val	Asp	Pro	Arg 200	Pro	Glu	Gly	Asp	Pro 205	Gln	Arg	Thr
Val	Ile 210	Ser	Trp	Arg	Gly	Ala 215	Val	Ile	Glu	Pro	Glu 220	Gln	Gly	Thr	Glu

Leu 225	Pro	Ser	Arg	Arg	Ala 230	Glu	Val	Pro	Thr	Lys 235	Pro	Pro	Leu	Pro	Pro 240
Ala	Arg	Thr	Gln	Gly 245	Thr	Pro	Val	His	Leu 250	Asn	Tyr	Arg	Gln	Lys 255	Gly
Val	Ile	Asp	Val 260	Phe	Leu	His	Ala	Trp 265	Lys	Gly	Tyr	Arg	Lys 270	Phe	Ala
Trp	Gly	His 275	Asp	Glu	Leu	Lys	Pro 280	Val	Ser	Arg	Ser	Phe 285	Ser	Glu	Trp
Phe	Gly 290	Leu	Gly	Leu	Thr	Leu 295	Ile	Asp	Ala	Leu	Asp 300	Thr	Met	Trp	Ile
Leu 305	Gly	Leu	Arg	Lys	Glu 310	Phe	Glu	Glu	Ala	Arg 315	Lys	Trp	Val	Ser	Lys 320
Lys	Leu	His	Phe	Glu 325	Lys	Asp	Val	Asp	Val 330	Asn	Leu	Phe	Glu	Ser 335	Thr
			340	Gly	_			345		-			350		
		355		Arg	-		360	-		-		365			
Ala	Phe 370	Arg	Thr	Pro	Ser	Lys 375	Ile	Pro	Tyr	Ser	Asp 380	Val	Asn	Ile	Gly
Thr 385	Gly	Val	Ala	His	Pro 390	Pro	Arg	Trp	Thr	Ser 395	Asp	Ser	Thr	Val	Ala 400
				11e 405					410					415	
_	-	-	420	Phe				425		-			430		
		435		Gly			440	_	,			445			
	450			Leu		455					460				
465				Tyr	470					475					480
Gly	Lys	Gln	Glu	Thr 485	Gln	Leu	Leu	Glu	Asp 490	Tyr	Val	Glu	Ala	11e 495	Glu

848

 Gly
 Val
 Arg
 Thr
 His
 Leu
 Leu
 Arg
 His
 Xaa
 Glu
 Pro
 Ser
 Lys
 Leu
 Thr

 Phe
 Val
 Gly
 Glu
 Leu
 Ala
 His
 Gly
 Arg
 Phe
 Ser
 Ala
 Lys
 Met
 Asp
 His

 Leu
 Val
 Cys
 Phe
 Leu
 Pro
 Gly
 Thr
 Leu
 Ala
 Leu
 Ala
 Tyr
 His
 Gly
 Thr
 Leu
 Ala
 Leu
 Gly
 Val
 Tyr
 His
 Gly
 Fro
 Gly
 Leu
 Ala
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 His
 Gly
 Fro
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 Fro
 Gly
 Fro

<210> 798

<211> 106

<212> PRT

<213> Homo sapiens

<400> 798

Leu Leu Pro His Pro Gly Arg Met Leu Thr Phe Met Glu Ala Asp Met
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Cys Thr Gln Asn Gln Arg Glu Pro Val Ile Leu Ser Trp Arg Ser Gln 20 25 30

Lys Thr Ser Ala Tyr Ser Ser Phe Arg Trp Met Ala Gln Glu Ser Ser 35 40 45

Glu Pro Met Gly Asp Leu Ile Tyr Tyr His Ile Arg Leu Leu Gly Met 50 60

Asn Ile Cys Val Ile Phe Pro Asn Asp Leu Thr Leu Phe Tyr Leu Cys 65 70 75 80

Ile Gln Phe Leu Cys His Asn Val Leu Phe Cys Phe Ser Phe Ser Ile 85 90 95

Val Glu Glu Gly Arg Ser Ser Lys Leu Leu

849

100 105

<210> 799

<211> 114

<212> PRT

<213> Homo sapiens

<400> 799

Cys Asn Leu Ile Gln Ser Asp Tyr Ser Val Ala Leu Pro His Gly Lys

1 10 15

Ser Tyr Phe Phe Arg Ser Lys Lys Leu Asn Ser Met Leu Val Thr Trp $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Gln Leu Glu Phe Ser Phe Asn Val Asn Lys Ile Glu Thr Leu Val
35 40 45

Phe Ser Gly Glu Trp Lys Glu Leu Pro Leu Gln Val Met Lys Pro 50 55 60

Asp Leu Ile Met Lys Leu Leu Asn His Ser Ser Cys Val Gln Asn Tyr 65 70 75 80

Cys Phe Phe Cys Leu Phe Phe Leu Phe Val Thr Val Tyr Ile Lys Ile 85 90 95

Leu Glu Asp Ala Leu Leu Cys Lys Lys Lys Lys Lys Lys Lys Lys Arg

Ala Ala

<210> 800

<211> 363

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (358)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 800

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Glu Lys Leu Leu Ser Leu Leu Pro Glu Tyr Val Val Pro Tyr Met Ile

				20					25					30		
1	His	Leu	Leu 35		His	Asp	Pro	Asp 40	Phe	Thr	Arg	Ser	Gln 45	Asp	Val	Asp
(Gln	Leu 50	Arg	Asp	Ile	Lys	Glu 55	Cys	Leu	Trp	Phe	Met 60	Leu	Glu	Val	Leu
1	Met 65	Thr	Lys	Asn	Glu	Asn 70	Asn	Ser	His	Ala	Phe 75	Met	Lys	Lys	Met	Ala 80
(Glu	Asn	Ile	Lys	Leu 85	Thr	Arg	Asp	Ala	Gln 90	Ser	Pro	Asp	Glu	Ser 95	Lys
•	Phr	Asn	Glu	Lys 100	Leu	Tyr	Thr	Val	Cys 105	Asp	Val	Ala	Leu	Cys 110	Val	Ile
1	Asn	Ser	Lys 115	Ser	Ala	Leu	Cys	Asn 120	Ala	Asp	Ser	Pro	Lys 125	Asp	Pro	Val
1	Leu	Pro 130	Met	Lys	Phe	Pḥe	Thr 135	Gln	Pro	Glu	Lys	Asp 140	Phe	Cys	Asn	Asp
	Lys 145	Ser	Tyr	Ile	Ser	Glu 150	Glu	Thr	Arg	Val	Leu 155	Leu	Leu	Thr	Gly	Lys 160
3	Pro	Lys	Pro	Ala	Gly 165	Val	Leu	Gly	Ala	Val 170	Asn	Lys	Pro	Leu	Ser 175	Ala
7	Chr	Gly	Arg	Lys 180	Pro	Tyr	Val	Arg	Ser 185	Thr	Gly	Thr	Glu	Thr 190	Gly	Ser
1	Asn	Ile	Asn 195	Val	Asn	Ser	Glu	Leu 200	Asn	Pro	Ser	Thr	Gly 205	Asn	Arg	Ser
P	Arg	Glu 210	Gln	Ser	Ser	Glu	Ala 215	Ala	Glu	Thr	Gly	Val 220	Ser	Glu	Asn	Glu
	31u 225	Asn	Pro	Val	Arg	Ile 230	Ile	Ser	Val	Thr	Pro 235	Val	Lys	Asn	Ile	Asp 240
F	Pro	Val	Lys	Asn	Lys 245	Glu	Ile	Asn	Ser	Asp 250	Gln	Ala	Thr	Gln	Gly 255	Asn
3	le	Ser	Ser	Asp 260	Arg	Gly	Lys	Lys	Arg 265	Thr	Val	Thr	Ala	Ala 270	Gly	Ala
G	lu	Asn	11e 275	Gln	Gln	Lys	Thr	Asp 280	Glu	Lys	Val	Asp	Glu 285	Ser	Gly	Pro
F	ro	Ala	Pro	Ser	Lvs	Pro	Ara	Ara	Glv	Ara	Ara	Pro	Lvs	Ser	Glu	Ser

851

300

295

Gln Gly Asn Ala Thr Lys Asn Asp Asp Leu Asn Lys Pro Ile Asn Lys

290

310 Gly Arg Lys Arg Ala Ala Val Gly Gln Glu Ser Pro Gly Gly Leu Glu 330 Ala Gly Asn Ala Lys Ala Pro Lys Leu Gln Asp Leu Ala Lys Lys Ala 345 Ala Pro Ala Glu Arg Xaa Ile Asp Leu Gln Arg 360 <210> 801 <211> 581 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <400> 801 Xaa Ser Ser Asn Thr Thr His Tyr Arg Gly Gly Ser Ala Ser Glu Ala Ala Met Ser Tyr Pro Ala Asp Asp Tyr Glu Ser Glu Ala Ala Tyr Asp 25 Pro Tyr Ala Tyr Pro Ser Asp Tyr Asp Met His Thr Gly Asp Pro Lys 40 Gln Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val 70 75 Ser Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr 105 Glu Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro 115 120 125

852

Trp	Pro 130	Glu	Ala	Glu	Ala	Ile 135	Ala	Pro	Gln	Val	Gly 140	Asn	Asp	Ala	Val
Phe 145	Leu	Ile	Leu	Tyr	Lys 150	Glu	Leu	Tyr	Tyr	Arg 155	His	Ile	Tyr	Ala	Lys 160
Val	Ser	Gly	Gly	Pro 165	Ser	Leu	Glu	Gln	Arg 170	Phe	Glu	Ser	Tyr	Tyr 175	Asn
Tyr	Cys	Asn	Leu 180	Phe	Asn	Tyr	Ile	Leu 185	Asn	Ala	Asp	Gly	Pro 190	Ala	Pro
Leu	Glu	Leu 195	Pro	Asn	Gln	Trp	Leu 200	Trp	Asp	Ile	Ile	Asp 205	Glu	Phe	Ile
Tyr	Gln 210	Phe	Gln	Ser	Phe	Ser 215	Gln	туг	Arg	Суѕ	Lys 220	Thr	Ala	Lys	Lys
Ser 225	Glu	Glu	Glu	Ile	Asp 230	Phe	Leu	Arg	Ser	Asn 235	Pro	Lys	Ile	Trp	Asn 240
Val	His	Ser	Val	Leu 245	Asn	Val	Leu	His	Ser 250	Leu	Val	Asp	Lys	Ser 255	Asn
Ile	Asn	Arg	Gln 260	Leu	Glu	Val	туг	Thr 265	Ser	Gly	Gly	Asp	Pro 270	Glu	Ser
Val	Ala	Gly 275	Glu	Tyr	Gly	Arg	His 280	Ser	Leu	Tyr	Lys	Met 285	Leu	Gly	Tyr
Phe	Ser 290	Leu	Val	Gly	Leu	Leu 295	Arg	Leu	His	Ser	Leu 300	Leu	Gly	Asp	Tyr
Tyr 305	Gln	Ala	Ile	Lys	Val 310	Leu	Glu	Asn	Ile	Glu 315	Leu	Asn	Lys	Lys	Ser 320
Met	Tyr	Ser	Arg	Val 325	Pro	Glu	Cys	Gln	Val 330	Thr	Thr	Tyr	Tyr	Tyr 335	Val
Gly	Phe	Ala	Туг 340	Leu	Met	Met	Arg	Arg 345	Tyr	Gln	Asp	Ala	Ile 350	Arg	Val
Phe	Ala	Asn 355	Ile	Leu	Leu	Tyr	Ile 360	Gln	Arg	Thr	Lys	Ser 365	Met	Phe	Gln
Arg	Thr 370	Thr	Tyr	Lys	Туr	Glu 375	Met	Ile	Asn	Lys	Gln 380	Asn	Glu	Gln	Met
His 385	Ala	Leu	Leu	Ala	Ile 390	Ala	Leu	Thr	Met	Tyr 395	Pro	Met	Arg	Ile	Asp 400

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853

Glu Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr 425 Ser Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val 435 440 445 His Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe 455 Ser Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe 470 Leu Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu 485 490 Asp Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His 505 Lys Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly 520 Glu Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe 545 550 555 Ile Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys 570 575 565 Met Gly Gln Arg Pro 580

<210> 802

<211> 302

<212> PRT

<213> Homo sapiens

<400> 802

Ala Ser Glu Pro Trp Ala Ser Glu Leu Trp Leu Trp Val Asp Gly Gly
1 5 10 15

Asp Thr Pro Arg Arg Arg Arg Glu Gly Arg Arg Gly Leu His Leu 20 25 30

His Ala Ser Arg Leu Pro Leu Pro Ser Ala Pro Gly Pro Cys Ser Ser

		35					40					45			
Leu	Gln 50	Asp	Gln	Ala	Met	Glu 55	Leu	Glu	Val	Arg	Arg 60	Val	Arg	Gln	Ala
Phe 65	Leu	Ser	Gly	Arg	Ser 70	Arg	Pro	Leu	Arg	Phe 75	Arg	Leu	Gln	Gln	Leu 80
Glu	Ala	Leu	Arg	Arg 85	Met	Val	Gln	Glu	Arg 90	Glu	Lys	Asp	Ile	Leu 95	Thr
Ala	Ile	Ala	Ala 100	Asp	Leu	Cys	Lys	Ser 105	Glu	Phe	Asn	Val	Tyr 110	Ser	Gln
Glu	Val	Ile 115	Thr	Val	Leu	Gly	Glu 120	Ile	Asp	Phe	Met	Leu 125	Glu	Asn	Leu
Pro	Glu 130	Trp	Val	Thr	Ala	Lys 135	Pro	Val	Lys	Lys	Asn 140	Val	Leu	Thr	Met
Leu 145	Asp	Glu	Ala	Tyr	11e 150	Gln	Pro	Gln	Pro	Leu 155	Gly	Val	Val	Leu	Ile 160
Ile	Gly	Ala	Trp	Asn 165	Tyr	Pro	Phe	Val	Leu 170	Thr	Ile	Gln	Pro	Leu 175	Ile
Gly	Ala	Ile	Ala 180	Ala	Gly	Asn	Ala	Val 185	Ile	Ile	Lys	Pro	Ser 190	Glu	Leu
Ser	Glu	Asn 195	Thr	Ala	Lys	Ile	Leu 200	Ala	Lys	Leu	Leu	Pro 205	Gln	Tyr	Leu
Asp	Gln 210	Asp	Leu	Tyr	Ile	Val 215	Ile	Asn	Gly	Gly	Val 220	Glu	Glu	Thr	Thr
Glu 225	Leu	Leu	Lys	Gln	Arg 230	Phe	Asp	His	Ile	Phe 235	Tyr	Thr	Gly	Asn	Thr 240
Ala	Val	Gly	Lys	11e 245	Val	Met	Glu	Ala	Ala 250	Ala	Lys	His	Leu	Thr 255	Pro
Val	Thr	Leu	Glu 260	Leu	Gly	Gly	Lys	Ser 265	Pro	Суз	Tyr	Ile	Asp 270	Lys	Asp
Cys	Asp	Leu 275	Gly	His	Cys	Leu	Gln 280	Thr	His	Asn	Leu	Gly 285	Lys	Ile	His
Glu	Leu 290	Trp	Pro	Asn	Leu	His 295	Cys	Thr	Arg	Leu	Tyr 300	Ser	Leu		

<210> 803

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<211> 44
<212> PRT
<213> Homo sapiens
<400> 803
Pro Leu Gly Arg Leu Arg Gln Glu Asn Arg Leu Asn Pro Gly Gly Gly
                                     10
Gly Cys Ser Glu Pro Arg Ser His His Cys Thr Pro Ala Trp Val Met
                                  25
Glu Arg Asp Ser Ile Ser Lys Lys Lys Leu Cys Met
         35
                             40
<210> 804
<211> 97
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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856

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<400> 804
Ala Ile Leu Arg Leu Xaa Leu Xaa Gly Arg Xaa Leu Thr Xaa Xaa Leu
 1
                  5
                                     10
                                                          15
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857

Met Lys Ile Leu Val Glu Xaa Arg Leu Gln Leu His His Gly Arg
20 25 30

Xaa Gly Lys Ser Cys Xaa Thr Ser Arg Arg Ser Cys Ala Thr Ser Pro 35 40 45

Trp Asp Phe Xaa Xaa Glu Met Ala Thr Ala Ala Ser Ser Ser Leu 50 55 60

Glu Lys Ser Tyr Xaa Leu Pro Asp Gly Gln Val Ile Thr Ile Xaa Asn 65 70 75 80

Glu Arg Phe Arg Cys Pro Xaa Gly Ala Val Pro Ala Xaa Pro Ser Trp 85 90 95

Xaa

<210> 805

<211> 65

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 805

Tyr Thr Leu Leu Glu Leu Glu Leu Pro Arg Leu Leu Ala Pro Asp Leu 1 5 10 15

Pro Ser Asn Gly Ser Ser Leu Lys Asp Leu Lys Trp Thr His Ser Asn 20 25 30

Tyr Arg Ala Ser Lys Glu Ser Cys Ile Val Ile Phe Arg His Tyr Leu 35 40 45

Pro Gly Ser Gly Val Gly Asn Leu Arg Ala Cys Xaa Leu Pro Trp Met 50 55 60

Trp

65

<210> 806

<211> 58

<212> PRT

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<213> Homo sapiens
<220>
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<222> (43)
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<222> (45)
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<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 806
Glu Gln Gly Gln Ser Asn Asn Ser Asp Thr Cys Ala Glu Phe Arg
                  5
                                     10
Ile Lys Tyr Val Gly Ala Ile Glu Lys Leu Lys Leu Ser Glu Gly Lys
Gly Leu Glu Gly Pro Leu Arg Pro Asp Lys Xaa Xaa Xaa Thr Leu Ala
         35
                             40
Gln Gln Gly Trp Xaa Val Cys Leu Leu Phe
     50
                         55
<210> 807
<211> 63
<212> PRT
<213> Homo sapiens
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<400> 807
Ile Arg Xaa Ser Ser Xaa Trp Xaa Xaa Xaa Arg Gly Xaa Xaa Xaa Ile
Glu Asp Tyr Arg Gly Asn Val Gly Val Val Leu Phe Asn Phe Gly Lys
             20
                                 25
Glu Lys Phe Glu Val Lys Lys Gly Asp Arg Ile Ala Gln Leu His Leu
Xaa Thr Asp Phe Leu Ser Arg Asn Arg Arg Ser Ser Ser Leu Gly
                         55
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<210> 808
<211> 161
<212> PRT
<213> Homo sapiens
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<400> 808
Ala Ser Gln Leu Pro Asp Tyr Ser Ile Ser Pro Pro Ser Leu Pro Pro
                                     10
Arg Ile Ser Phe His Pro Ser Pro Thr Leu Ala Arg Val Ala Met Ala
                                25
Glu Pro Ser Ala Ala Thr Gln Ser His Ser Ile Ser Ser Ser Phe
         35
Gly Ala Glu Pro Ser Ala Pro Gly Gly Gly Gly Ser Pro Gly Ala Cys
                         55
Pro Ala Leu Gly Thr Lys Ser Cys Ser Ser Ser Cys Ala Val His Asp
 65
                     70
                                       75
Leu Ile Phe Trp Arg Asp Val Lys Lys Thr Gly Phe Val Phe Gly Thr
Thr Leu Ile Met Leu Leu Ser Leu Ala Ala Phe Ser Val Ile Ser Val
                               105
Val Ser Tyr Leu Ile Leu Ala Leu Leu Ser Val Thr Ile Ser Phe Arg
       115
                           120
Ile Tyr Lys Ser Val Ile Gln Ala Val Gln Lys Ser Glu Xaa Gly His
                       135
Pro Phe Xaa Ala Tyr Leu Asp Xaa Thr Leu Leu Cys Pro Gln Asn Phe
                   150
                                      155
                                                            160
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861

Pro

<221> SITE <222> (44)

<220>

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<210> 809
<211> 61
<212> PRT
<213> Homo sapiens
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Glu Thr Pro Ala Gly Cys Xaa Ile Asn Ser Ser Ser Ala Ser Ser Pro
                                     10
Ala Ser His Leu Leu Xaa Ala Pro Arg Gln Ser Ala Gln Ser His Val
                                25
His Pro Arg Ser Ala Leu Ser Pro Ala His His Gln Ser Val His Ser
Pro Ala His Leu Ser Ser Ala Ser Arg Asn Val Leu Leu
     50
                         55
<210> 810
<211> 87
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE
<222> (76)
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<400> 810
Thr Glu Val Ala Arg Val Arg Leu Leu Arg Pro Ser Xaa Ala Ala Ala
                                     10
Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn Ser
             20
                                 25
Ser Pro Ser Ala Lys Asp Ile Lys Lys Ile Leu Xaa Ser Val Gly Ile
                           40
Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn Gly
                         55
Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Xaa Lys Leu Ala Ser
                     70
Val Pro Ala Gly Trp Gly Leu
                 85
<210> 811
<211> 100
<212> PRT
<213> Homo sapiens
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<221> SITE
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864

<222> (100) <223> Xaa equals any of the naturally occurring L-amino acids <400> 811 Ala Pro Ser Cys Ser Trp Leu Ser Ser Gly Xaa Arg Ser Xaa Pro Asp 10 Phe Pro Thr Pro Gly Val Val Phe Arg Asp Ile Ser Pro Val Leu Lys Asp Pro Xaa Xaa Phe Arg Ala Xaa Ile Gly Leu Leu Ala Arg Xaa Leu Lys Ala Thr His Gly Gly Arg Ile Asp Tyr Ile Ala Gly Leu Asp Xaa 55 Arg Arg Val Pro Leu Leu Ala Leu Pro Gly Pro Gly Ala Leu Asp Trp 70 75 Ala Ala Trp Leu Ile Arg Xaa Arg Xaa Glu Xaa Xaa Xaa Pro Ile Leu Trp Xaa Xaa 100 <210> 812 <211> 85 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids <400> 812 Thr Ser Gln Val Arg Gln Asn Tyr His Gln Asp Ser Glu Ala Ala Ile Asn Arg Gln Ile Asn Leu Glu Leu Tyr Ala Ser Tyr Val Tyr Leu Ser Met Ser Tyr Tyr Phe Asp Arg Asp Val Ala Leu Lys Asn Phe Ala Lys Tyr Phe Leu His Gln Ser His Glu Glu Arg Glu His Ala Glu Lys

Leu Met Lys Leu Gln Asn His Glu Val Ala Glu Ser Ser Xaa Gly Tyr

865

70

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75
                                                               80
Gln Glu Thr Arg Leu
                  85
<210> 813
<211> 88
<212> PRT
<213> Homo sapiens
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<220>
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866

<220>

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Lys Leu Val Arg Xaa Pro Val Gln Val Xaa Gly Ile Glu Gly Xaa Tyr
Xaa Thr Xaa Leu Tyr Ser Ala Ala Ser Lys Gln Asn Lys Leu Glu Gln
                             25
Val Glu Lys Glu Leu Leu Arg Val Ala Gln Xaa Leu Lys Glu Pro Lys
                                                 45
         35
                             40
Val Ala Ala Ser Val Leu Asn Pro Tyr Val Lys Arg Ser Ile Lys Val
                         55
Lys Ser Leu Xaa Asp Ile Thr Ala Xaa Glu Arg Xaa Ser Pro Leu His
 65
                     70
                                        75
Tyr Gln Pro Xaa Xaa Phe Ala Cys
                 85
<210> 814
<211> 133
<212> PRT
<213> Homo sapiens
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<222> (125)
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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867

<400> 814 Ala Gly Ala Val Ile Ile Gly Phe Arg Ser Lys Ile Lys Asn Ala Leu 10 Ala His Phe Leu Pro Gln Gly Thr Pro Thr Pro Leu Ile Pro Ile Leu 25 Val Ile Ile Glu Thr Ile Ser Leu Leu Ile Gln Pro Ile Ala Leu Ala 35 40 Val Arg Leu Thr Ala Asn Ile Thr Ala Gly His Leu Leu Met His Leu 55 Ile Gly Ser Ala Thr Leu Ala Ile Ser Thr Ile Asn Leu Pro Ser Thr 65 70 75 Leu Ile Ile Phe Thr Ile Leu Ile Leu Leu Thr Ile Leu Glu Ile Ala 90 Val Ala Leu Ile Gln Ala Tyr Val Phe Thr Leu Leu Val Lys Pro Leu 105 Pro Ala Arg Gln His Ile Lys Lys Lys Lys Lys Kaa Lys Gly Gly 115 120 Ala Gly Xaa Gln Ser 130 <210> 815 <211> 110 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (24) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

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868

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<222> (56)
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Lys Pro Lys Tyr Lys Gly Arg Xaa Thr Ile Asn Pro Ser Lys Ala Ser
                                 25
Thr Asn Pro Xaa Arg Val Gln Gly Ala Xaa Gly Gln Asn Met Arg Asp
         35
                             40
Arg Ala Thr Ile Arg Arg Leu Xaa Met Tyr Arg Gln Lys Glu Arg Arg
Xaa Ser Arg Gly Lys Xaa Ile Lys Pro Leu Gln Tyr Gln Ser Thr Val
 65
                     70
                                         75
Ala Ser Gly Thr Val Ala Arg Val Glu Pro Asn Ile Lys Trp Phe Gly
Asn Thr Arg Val Ile Lys Gln Ser Ser Leu Gln Lys Phe Gln
                                105
<210> 816
<211> 122
<212> PRT
<213> Homo sapiens
<400> 816
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Lys Asn Ala Leu Glu Lys Tyr Gly Pro Leu Lys Pro Leu Pro Gln Thr

869

<210> 817

<211> 54

<212> PRT

<213> Homo sapiens

<400> 817

Pro Glu Pro Pro Glu Ser Trp Ser Gly Val Arg Asp Gly Thr Thr His 1 5 10 15

Pro Ala Met Cys Leu Gln Asp Leu Thr Ala Val Glu Ser Glu Phe Leu
20 25 30

Ser Gln Phe Asn Met Thr Phe Pro Ser Ser Pro Pro Pro Ser Pro Cys 35 40 45

Leu Leu Ser Ser Leu Val

<210> 818

<211> 46

<212> PRT

<213> Homo sapiens

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<400> 818
Ala Met Ile Ser Ile Gly Phe Leu Gly Xaa Ile Val Arg Ala His His
Ile Phe Thr Val Gly Ile Asp Xaa Asp Thr Xaa Ala Tyr Phe Thr Cys
                                 25.
Xaa Thr Ile Ile Xaa Xaa Ile Pro Lys Arg Gly Gln Xaa Asn
                             40
<210> 819
<211> 118
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<213> Homo sapiens
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Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn
                  5
                                     10
Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly
His Leu Thr Tyr Xaa Xaa Gly Gly Ile Asp Lys Arg Xaa Ile Glu Lys
                             40
Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala
                         55
Trp Val Leu Asp Xaa Leu Lys Ala Glu Arg Xaa Arg Gly Ile Thr Ile
                     70
Asp Ile Ser Leu Trp Lys Phe Glu Thr Ser Lys Tyr Tyr Val Thr Ile
                 85
                                     90
Ile Asp Ala Pro Gly His Arg Asp Phe Ile Lys Xaa Met Ile Thr Gly
            100
                                105
                                                    110
```

872

Thr Ser Gln Ala Asp Cys 115

<210> 820

<211> 80

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 820

Ile Leu Gly Phe Phe Glu Ile Ile Thr Val Cys Phe Pro Phe Val Ala 1 5 10 15

Gly Asn Phe Trp Gly Arg Thr Leu Leu Leu Ser Ser Val Xaa Gln Thr 20 25 30

Gln Pro Val Thr Met Val Leu Asp His Leu Cys Arg Asp Ser Thr Ser 35 40 45

Phe Pro Ile Met Ile Cys Pro His Trp Arg Tyr Phe Thr Ser Val Ile 50 55 60

Val Leu Ser Ser Leu Gly Ile Glu Ile Lys Ala Val Glu Tyr Met Asn
65 70 75 80

<210> 821

<211> 100

<212> PRT

<213> Homo sapiens

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<400> 821
Thr Ile Gln Lys Gly Thr Lys Ala Trp Ser Ile His Arg Gly Gly Gly
Arg Ser Xaa Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser
                                 25
             20
Ala Gly Pro Glu Met Gln Thr Gly Arg Asn Asn Phe Val Xaa Arg Arg
Asn Pro Ala Asp Pro Gln Arg Xaa Pro Ser Asn Pro Ser His Arg Xaa
  . 50
                         55
Gln Cys Ala Ala Gly Xaa Glu Gln Ser Glu His Asn Val Cys Gln Asp
                     70
65
                                         75
```

```
Xaa Xaa Glu Cys Thr Ala Gly Thr His Asn Cys Arg Ala Asp Gln Val
                                      90
Cys Xaa Xaa Leu
            100
<210> 822
<211> 163
<212> PRT
<213> Homo sapiens
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<222> (153)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (154)
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876

<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (155) <223> Xaa equals any of the naturally occurring L-amino acids Xaa Gln Xaa Cys Xaa Asp Gly Thr Asn Pro Gly Xaa Leu Phe Gln Pro Pro Thr Asp Pro Pro Ile Ser Ser Pro Leu Ala Thr Ser Gly Thr Ile 25 Phe Ser Xaa Ile Ser Xaa Phe Trp Asp Leu Xaa Pro Pro Phe Leu Trp 40 45 Leu Ala Pro Ser Cys Gln Pro Thr Met Ser Ser Gln Ile Arg Gln Asn Tyr Ser Thr Asp Xaa Glu Ala Thr Val Asn Ser Leu Val Xaa Leu Tyr 70 75 Leu His Ala Ser Tyr Thr Tyr Leu Ser Leu Gly Phe Tyr Phe Xaa Xaa 85 90 Asp Asp Leu Ala Leu Glu Ser Val Ser Xaa Phe Phe His Glu Thr Gly 105 Arg Gly Xaa Arg Xaa Gly Tyr Glu Arg Leu Leu Asn Met Gln Asn Gln 115 Arg Gly Arg Pro Arg Ser Leu Pro Gly Ser Gln Gln Ala Xaa Leu Xaa 135 Ile Ile Gly Val Lys Thr Pro Lys Xaa Xaa Xaa Thr Cys His Cys Pro 145 150 Glu Asn Lys <210> 823 <211> 62 <212> PRT

<213> Homo sapiens

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<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 823
Xaa Gly Thr Ser Xaa Ser Lys Ala Ser Thr Pro Asn Gly Tyr Asp Asn
                                      10
Gly Xaa Ile Trp Xaa Thr Trp Lys Thr Arg Trp Tyr Xaa Met Lys Lys
                                  25
Thr Thr Xaa Xaa Ile Ile Pro Phe Asn Arg Leu Thr Ile Xaa Glu Gly
Gln Gln His His Leu Gly Gly Ala Lys Gln Ala Gly Asp Val
     50
                         55
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<210> 824
<211> 53
<212> PRT
<213> Homo sapiens
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<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
Glu Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser Xaa
Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu Lys Asp
             20
                                 25
Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr Xaa Xaa Asn
         35
                             40
                                                 45
Val Ser Pro Xaa Xaa
     50
<210> 825
<211> 26
<212> PRT
<213> Homo sapiens
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879

<400> 825 Ser Arg Phe Thr Asp Asp Asp Lys Thr Asp His Leu Ser Trp Glu Trp 5 10 Asn Leu Thr Ile Lys Lys Asp Trp Lys Asp <210> 826 <211> 102 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <400> 826 Arg Ser Val Arg Ala Leu Leu Cys Thr Leu Arg Ala Val Pro Leu Pro Ala Ala Pro Cys Pro Pro Arg Pro Trp Gln Leu Gly Val Gly Ala Val 20 25 Arg Thr Leu Arg Thr Gly Pro Ala Leu Leu Ser Val Arg Lys Phe Thr 40 Xaa Lys His Glu Trp Val Asn Asn Arg Lys Trp His Trp Asn Ser Gly Asn Pro Ala Ile Leu His Arg Lys Arg Trp Glu Ile Leu Phe Ile Val Ile Ser Leu Lys Phe Gly Thr Lys Phe Glu Thr Asn Lys Leu Ile Leu Gly Cys Phe Trp Arg Val 100 <210> 827 <211> 140 <212> PRT <213> Homo sapiens <220>

<221> SITE <222> (96)

880

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<221> SITE
<222> (131)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 827
Pro His Ser Arg Ala Leu Leu Thr Pro Asn Arg Ala Pro Lys Lys
                  5
Met Ala Ile Ser Gly Val Pro Val Leu Gly Phe Phe Ile Ile Ala Val
Leu Met Ser Ala Gln Glu Ser Trp Ala Ile Lys Glu Glu His Val Ile
                             40
Ile Gln Ala Glu Phe Tyr Leu Asn Pro Asp Gln Ser Gly Glu Phe Met
Phe Asp Phe Asp Gly Asp Glu Ile Phe His Val Asp Met Ala Lys Lys
Glu Thr Val Trp Arg Leu Glu Glu Phe Gly Arg Phe Ala Ser Phe Xaa
                 85
                                     90
Ala Gln Gly Ala Leu Ala Asn Ile Ala Val Asp Lys Ala Asn Leu Glu
Ile Met Thr Lys Arg Ser Asn Tyr Thr Pro Ile Thr Asn Val Pro Xaa
                           120
Glu Val Xaa Cys Ala His Xaa Gln Pro Cys Gly Thr
    130
                        135
                                            140
<210> 828
<211> 88
<212> PRT
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<213> Homo sapiens

881

<220>

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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 828
Arg Xaa Asp Glu Asn Lys Val Asp Gly Met Asn Ala Pro Lys Gly Gln
                                     10
Thr Gly Asn Ser Ser Arg Gly Pro Gly Asp Gly Gly Asn Arg Asp His
             20
                                 25
Trp Lys Glu Ser Asp Arg Lys Asp Gly Lys Lys Asp Gln Asp Ser Arg
Ser Ala Pro Glu Pro Lys Lys Pro Glu Glu Asn Pro Ala Ser Lys Phe
     50
                         55
Ser Ser Ala Ser Lys Tyr Ala Ala Leu Ser Val Asp Gly Glu Asp Glu
 65
                     70
                                          75
Asn Glu Gly Glu Asp Tyr Ala Glu
                 85
<210> 829
<211> 217
<212> PRT
<213> Homo sapiens
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<222> (206)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (210)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 829
Ile Leu Pro Gly Tyr Ile Asp Phe Thr Ala Asp Gln Val Asp Leu Thr
Ser Ala Leu Thr Lys Lys Ile Thr Leu Lys Thr Pro Leu Val Ser Ser
             20
                                 25
Pro Met Asp Thr Val Thr Glu Ala Gly Met Ala Ile Ala Met Ala Leu
Thr Gly Gly Ile Gly Phe Ile His His Asn Cys Thr Pro Glu Phe Gln
                         55
Ala Asn Glu Val Arg Lys Val Lys Lys Tyr Glu Gln Gly Phe Ile Thr
 65
                     70
Asp Pro Val Val Leu Ser Pro Lys Asp Arg Val Arg Asp Val Phe Glu
                                     90
Ala Lys Ala Arg His Gly Phe Cys Gly Ile Pro Ile Thr Asp Thr Gly
```

883

100 110 105 Arg Met Gly Ser Arg Leu Val Gly Ile Ile Ser Ser Arg Asp Ile Asp . 120 Phe Leu Lys Glu Glu Glu His Asp Xaa Phe Leu Glu Glu Ile Met Thr 135 Lys Arg Glu Asp Leu Val Val Ala Pro Ala Gly Ile Thr Leu Lys Glu 145 150 155 Ala Asn Glu Ile Leu Gln Arg Xaa Lys Xaa Gly Lys Val Pro Ile Xaa 170 Asn Glu Met Met Ser Leu Xaa Ala Xaa Trp Pro Asp Arg Xaa Glu Glu 180 185 Glu Ser Gly Xaa Pro Leu Ala Ser Lys Met Pro Glu Gln Xaa Trp Val 195 200 Gly Xaa His Gly Thr Met Gly Ala Ser 215 <210> 830 <211> 103 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (63) <223> Xaa equals any of the naturally occurring L-amino acids <220>

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<220>
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<222> (97)
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<400> 830
Trp Lys Phe Pro Xaa Asp Thr Xaa Xaa Arg Tyr Ala Cys Arg Tyr Arg
                                     10
Ser Gly Ile Pro Gly Ser Thr His Ala Ser Ala His Ala Ser Gly Ala
Ala Glu Thr Pro Pro Ala Trp His Leu Gly Ala Gln Arg Ser Pro Asp
                             40
Thr Ala Ala Ala Met Glu Ser Glu Thr Glu Pro Glu Pro Xaa Thr
                         55
Leu Leu Xaa Lys Ser Pro Asn Gln Arg His Arg Asp Leu Glu Leu Ser
 65
Gly Asp Arg Gly Trp Ser Val Gly His Leu Lys Ala His Leu Ser Arg
Xaa Tyr Pro Glu Arg Xaa Arg
            100
<210> 831
<211> 81
<212> PRT
<213> Homo sapiens
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<222> (60)
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<400> 831
Asn Pro Ser Ser Ser Tyr Arg Ser Ala Arg Val Gly Gly Met Ser Val
                                                         15
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885

Ala Cys Val Leu Lys Arg Lys Ala Val Leu Trp Gln Asp Ser Phe Ser 20 25 30

Pro His Leu Lys His His Pro Gln Glu Pro Ala Asn Pro Asn Met Pro 35 40 45

Val Val Leu Thr Ser Gly Thr Gly Ser Gln Ala Xaa His Asn Gln Leu 50 60

Gln Ile Arg Leu Leu Gln Leu Gly Leu Thr Pro Ala Leu Ser Gln Asp 65 70 75 80

Leu

<210> 832

<211> 94

<212> PRT

<213> Homo sapiens

<400> 832

Lys Arg Ser Leu Met Thr Arg Gly Leu Ser Leu Ala Leu Ala Val Val l 5 10 15

Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg 20 25 30

Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala 35 40 45

Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp 50 60

Arg Leu Met Arg Tyr Phe Leu Leu Thr His Leu Cys Gly Ile Ser His 65 70 75 80

Arg Ile Trp Cys Thr Leu Ser Thr Ile Cys Ser Asp Ala Ala 85 90

<210> 833

<211> 77

<212> PRT

<213> Homo sapiens

<400> 833

Gly Asp Arg Gly Pro Gly Leu Cys Leu His Arg Gln Val Pro Glu His

886

1 10 15 Leu Gly Pro Asp Phe Gly His Leu His Asp His Ser Ala His His His Pro Ser Val Gly Arg Pro Gly Pro Ala Ile Asp Gln Glu Ala Ser Leu 40 Arg Pro Gly Ala Leu Pro Val Thr Cys Ile Pro Arg Thr Leu Ser Ser Ile Pro Arg Pro Ala Pro Arg Gly Gln Glu Leu Cys Pro <210> 834 <211> 146 <212> PRT <213> Homo sapiens <400> 834 Phe Arg Phe Ile Asn Ala Arg Arg Ile Val Gln Pro Met Ile Asp 10 Gln Ser Asn Arg Ala Val Ser Gln Gly Ala Ala Tyr Ser Pro Glu Gly 20 Gln Pro Met Gly Ser Phe Val Leu Asp Gly Gln Gln His Met Gly Ile Arg Pro Ala Gly Leu Gln Ser Met Pro Gly Asp Tyr Val Ser Gln Gly 50 60 Gly Pro Met Gly Met Ser Met Ala Gln Pro Ser Tyr Thr Pro Pro Gln Met Thr Pro His Pro Thr Gln Leu Arg His Gly Pro Pro Met His Ser Tyr Leu Pro Ser His Pro His His Pro Ala Met Met His Gly Gly 100 105 Pro Pro Thr His Pro Gly Met Thr Met Ser Ala Gln Ser Pro Thr Met 120 Leu Asn Ser Val Asp Pro Asn Val Gly Gly Gln Val Met Asp Ile His

135

Ala Gln 145

887

<210> 835 <211> 104

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<212> PRT
<213> Homo sapiens
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<400> 835
Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
                 5
                                   10
                                                      15
Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
                               25
Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
               40 45
Phe Gln Lys Trp Ala Ala Val Val Pro Ser Gly Glu Glu Gln Arg
                        55
Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
Arg Trp Glu Leu Ser Ser Gln Pro Thr Ile Pro Ile Val Gly Xaa Ile
                85
                         90
Ala Gly Leu Val Leu Leu Gly Leu
           100
<210> 836
<211> 50
<212> PRT
<213> Homo sapiens
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<400> 836
Gly Gly Trp Thr Gln Arg Leu Ser Pro Pro Gly His Ser Glu Ser
Ala Gln Ser Lys Met Leu Ser Gly Ile Gly Gly Phe Val Leu Gly Ser
                                 25
Ser Ser Ser Gly Trp Ala Tyr Tyr Pro Ser Xaa Asp Gln Lys Xaa Leu
                             40
Leu His
     50
<210> 837
<211> 62
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 837
Xaa Arg Ser Ser Leu Xaa Thr Ile Asn Tyr Asn Glu Phe Pro Thr Met
                                     10
Val Phe Pro Ser Gly Gln Ile Ser Xaa Gly Ser Xaa Leu Ala Pro Ala
             20
                                 25
                                                      30
Pro Pro Gln Val Pro Ala Pro Gly Ser Ser Pro Cys Pro Xaa Xaa Gln
Xaa Trp Tyr Gln Leu Trp Pro Arg Pro Gln Xaa Leu Cys Pro
                         55
<210> 838
<211> 105
<212> PRT
<213> Homo sapiens
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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 838
His Glu Leu Thr Ala Lys Tyr Leu Asn Tyr Tyr Arg Gly Met Leu Asp
                  5
Val Ala His Glu Gln Val Asp Phe Lys Asp Phe Tyr Pro Ala Ile Ala
             20
                                 25
                                                     30
```

890

Val Asn Asp Val Arg Gln Ala Ala Arg Ser Ala Ala Ser Tyr Met Leu 35 Phe Asp Pro Lys Asp Ser Val Met Gln Gln Asn Leu Val Tyr Tyr Arg Phe His Arg Ala Arg Trp Gly Leu Glu Glu Glu Asp Phe Gln Pro Arg 70 75 Glu Glu Ala Met Leu Tyr His Asn Gln Thr Ala Glu Leu Arg Xaa Cys 85 90 Trp Ser Ser Xaa Thr Cys Thr Cys Xaa 100 <210> 839 <211> 49 <212> PRT <213> Homo sapiens <400> 839 Pro Asp Arg Pro Trp Ala Lys Pro Glu Asp Pro Ser Leu Leu Glu Asp 5 10 Pro Arg Ile Lys Ala Ile Ala Ala Lys His Asn Lys Thr Thr Ala Gln 25 Val Leu Ile Arg Phe Pro Met Gln Arg Asn Gly Gly Ser Pro Ser 40 45 Leu <210> 840 <211> 100 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE <222> (53)

891

<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (95) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (96) <223> Xaa equals any of the naturally occurring L-amino acids <400> 840 Ser Lys Gly Ile Arg Asp Asn Glu Arg Ser Gly Arg Ala Arg Val His 10 Val Ser Glu Glu Gly Thr Glu Pro Glu Ala Met Leu Gln Val Leu Gly 25 Pro Lys Pro Ala Leu Pro Ala Gly Thr Xaa Asp Thr Ala Lys Glu Asp 40 Ala Ala Asn Arg Xaa Leu Ala Lys Leu Tyr Lys Val Ser Asn Gly Ala 55 60 Trp Thr Met Ser Val Ser Leu Leu Ala Asp Glu Asn Pro Ser Ala Lys 65 Gly Pro Glu Ile Gln Lys Thr Ala Ser Ser Trp Thr Thr Gln Xaa Xaa Lys Ser Leu Ser 100 <210> 841 <211> 85 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids <400> 841 Gly Asn Gly Gly Arg Asp Phe Val Arg Arg Asp Leu Ala Ile Arg Asp

Thr Phe Val Asn Ala Ser Arg Thr Leu Tyr Ser Ser Ser Pro Arg Val

892

25

20

30

Leu Ser Asn Asn Ser Asp Ala Asn Leu Glu Leu Ile Asn Thr Trp Val Ala Lys Asn Thr Asn Asn Lys Ile Ser Arg Leu Leu Asp Ser Leu Xaa 55 Ser Asp Thr Arg Leu Val Leu Leu Asn Ala Ile Leu Pro Glu Cys Gln 65 70 75 Val Glu Asp Asn Ile <210> 842 <211> 81 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (33) <223> Xaa equals any of the naturally occurring L-amino acids

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                  5
                                     10
                                                          15
Xaa Val Leu Leu Gly Xaa Gly Asp Asn Thr Lys Thr Asn Leu Glu Ser
Xaa Leu Ser Tyr Pro Xaa Asp Phe Thr Xaa Val His Gln Ala Leu Lys
                             40
Gly Xaa Thr Thr Lys Gly Val Thr Ser Val Ser Gln Ile Phe Xaa Cys
                         55
Pro Glu Leu Ala Ile Arg Asp Pro Leu Xaa Asn Ala Xaa Arg Thr Leu
                     70
                                         75
Phe
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<212> PRT
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Gly Thr Ser Lys Ala Gln Asp Gly Thr Phe Ser Ser Val Leu Thr Leu
Thr Asn Leu Thr Gly Leu Asp Thr Gly Glu Tyr Phe Cys Thr His Asn
                                 25
Asp Ser Arg Gly Leu Glu Thr Asp Glu Arg Lys Arg Leu Tyr Ile Phe
                             40
Val Pro Glu Ala Thr Ser Ala Lys Pro Pro Leu Gly Thr Gly Arg Trp
                         55
Ile Leu Met Pro Thr Met Ser Thr Asp Ser Arg Val Ser Pro Leu Ser
Gly Leu Met Leu Ser Arg Val Phe Ile His Gln Arg Leu Cys Gly Thr
                                     90
Xaa Xaa Gly Leu Trp Ser Ala Arg Trp Arg Thr Ser Pro Ser Xaa Ala
            100
                               105
Leu Trp Ile Gly Xaa Glu Val Ser Ile
       115
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Xaa Arg Ala Gly Leu Gly Pro Gly Pro Trp Ala Xaa Pro His Ser Pro
                                     10
Trp Arg Ser Trp Arg Pro Leu Gln Ser Pro Lys Gly Leu Gly Arg Ser
                                 25
                                                      30
Trp Ala Val Arg Val Ser Arg Cys Pro Met Thr Lys Thr Phe Ala Ala
                             40
Ser Gly Gln Thr Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser Cys
                         55
Val Ile Thr Tyr Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro Lys
 65
                     70
                                         75
Trp Val Val Asn Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met Lys
Lys Met Tyr Lys Ala Cys Leu Lys Tyr Pro Glu Trp Lys Gln Lys His
```

896

100 105 110

Leu Pro His Phe Lys Pro Trp Leu His Pro Glu Gln Ser Pro Xaa Pro 115 120 125

Ser Leu Xaa Leu Arg Ser Xaa Arg 130 135

<210> 845

<211> 145

<212> PRT

<213> Homo sapiens

<400> 845

Pro Lys Gln Leu Glu Ala Leu Cys Val Gly Ala Ala Thr Gly Pro Arg
1 5 10 15

Ala Met Trp Leu Cys Pro Leu Ala Leu Asn Leu Ile Leu Met Ala Ala 20 25 30

Ser Gly Ala Val Cys Glu Val Lys Asp Val Cys Val Gly Ser Pro Gly 35 40 45

Ile Pro Gly Thr Pro Gly Ser His Gly Leu Pro Gly Arg Asp Gly Arg 50 55 60

Asp Gly Val Lys Gly Asp Pro Gly Pro Pro Gly Pro Met Gly Pro Pro 65 70 75 80

Gly Glu Met Pro Cys Pro Pro Gly Asn Asp Gly Leu Pro Gly Ala Pro 85 90 95

Gly Ile Pro Gly Glu Cys Gly Glu Lys Gly Glu Pro Gly Glu Arg Gly
100 105 110

Pro Pro Gly Leu Pro Ala His Leu Asp Glu Glu Leu Gln Ala Thr Leu 115 120 125

His Asp Phe Arg His Gln Ile Leu Gln Thr Arg Gly Ala Leu Ser Leu 130 135 140

Gln

145

<210> 846

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Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn
                                     10
Ile Val Val Ile Gly His Val Asn Ser Gly Lys Ser Thr Thr Thr Gly
                                 25
His Leu Ile Tyr Ile Cys Gly Gly Phe Xaa Lys Lys Xaa Phe Glu Xaa
Phe Glu Lys Glu Ala Ala Xaa Met Gly Lys Gly Ser Ser
     50
                         55
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<400> 847
Val Gln Pro Ala Leu Ala His Arg Ala Val Arg Asp Leu Arg Ala Ala
                  5
                                     10
```

898

Cys Arg Gln Gly Ile Cys Gln Arg Leu Arg Ser Pro Glu Pro Pro Glu Leu Gln His His Val Ile Trp Asp Leu Pro Gly Arg Gly Gly Gly 40 Gly Phe Leu Arg Pro Pro His Leu Met Pro Thr Pro Cys Pro Ala Arg 55 60 His Gly Arg Gly Leu Glu Ala Xaa Glu Lys 70 <210> 848 <211> 40 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <400> 848 Leu Xaa Xaa Xaa Glu Ala Ala Met Phe His Arg Lys Leu Phe Glu Glu 10 Leu Val Arg Ala Ser Ser His Ser Thr Asp Leu Met Glu Ala Met Ala Met Gly Ser Val Glu Ala Ser Tyr 35 <210> 849 <211> 125 <212> PRT <213> Homo sapiens

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Glu Glu Leu Gln Val Asp Phe Leu Asp His Val Pro Leu Thr Thr His
Asn Phe Ala Arg Lys Thr Phe Leu Lys Leu Ala Phe Cys Asp Ile Cys
                                25
Gln Lys Phe Leu Leu Asn Gly Phe Arg Cys Gln Thr Cys Gly Tyr Lys
Phe His Glu His Cys Ser Thr Lys Val Pro Thr Met Cys Val Asp Trp
Ser Asn Ile Arg Gln Leu Leu Phe Pro Asn Ser Thr Ile Gly Asp
65
                     70
                                         75
Ser Gly Val Pro Ala Leu Pro Ser Leu Thr Met Arg Arg Met Arg Glu
Ser Val Pro Arg Met Pro Val Ser Ser Gln His Arg Tyr Ser Thr Pro
Xaa Ala Phe Xaa Phe Xaa Thr Ser Ser Pro Ser Ser Xaa
        115
                          120
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<210> 850

<211> 52

<212> PRT

<213> Homo sapiens

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<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 850
Pro Asp Arg Arg Ala Ala Ile Met Asp Thr Ser Arg Val Gln Pro
                                     10
Ile Xaa Leu Ala Arg Val Thr Xaa Val Leu Gly Arg Thr Gly Ser Gln
Gly Gln Cys Thr Gln Val Ile Gly Trp Gly His Xaa Ala Asp Cys Arg
                             40
Xaa Pro Lys Pro
     50
<210> 851
<211> 108
<212> PRT
<213> Homo sapiens
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901

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902

<222> (86)

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903

Ala

<210> 854

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<400> 854
Leu Ser Ala Met Arg Phe Leu Ala Ala Thr Phe Leu Leu Leu Ala Leu
                                     10
```

Ser Thr Ala Ala Gln Ala Glu Pro Val Gln Phe Lys Asp Cys Gly Ser

904

20 25 30 Val Asp Gly Val Ile Lys Glu Val Asn Val Ser Pro Cys Pro Thr Gln Pro Cys Gln Leu Ser Lys Gly Gln Ser Tyr Ser Val Asn Val Thr Phe Thr Xaa Asn Ile Gln Xaa Lys Ser Xaa Lys Ala Val His Gly Ile 70 Leu Met Gly Val Pro Val Pro Phe Pro Ile Pro Glu Pro Asp Gly Cys 90 Lys Ser Gly Ile Asn Cys Pro Ile Gln Lys Asp Lys Thr Tyr Ser Tyr 105 Leu Asn Lys Leu Pro Xaa Lys Ser Glu Tyr Pro Ser Ile Lys Leu Xaa 115 120 125 Xaa Xaa 130 <210> 855 <211> 173 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (159) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (168) <223> Xaa equals any of the naturally occurring L-amino acids <400> 855 Phe Ile Phe Thr Lys Trp Leu Gln Asp Val Phe Asn Val Pro Leu Val 10 Ile Gln Met Thr Asp Asp Glu Lys Tyr Leu Trp Lys Asp Leu Thr Leu 20 Asp Gln Ala Tyr Ser Tyr Ala Val Glu Asn Ala Lys Asp Ile Ile Ala

Cys Gly Phe Asp Ile Asn Lys Thr Phe Ile Phe Ser Asp Leu Asp Tyr

905

50 55 60 Met Gly Met Ser Ser Gly Phe Tyr Lys Asn Val Val Lys Ile Gln Lys 70 His Val Thr Phe Asn Gln Val Lys Gly Ile Phe Gly Phe Thr Asp Ser 90 Asp Cys Ile Gly Lys Ile Ser Phe Pro Ala Ile Gln Ala Ala Pro Ser 100 105 Phe Ser Asn Ser Phe Pro Gln Ile Phe Arg Asp Arg Thr Asp Ile Gln 120 Cys Leu Ile Pro Cys Ala Ile Asp Gln Asp Pro Tyr Phe Arg Met Thr 130 135 Arg Asp Val Ala Pro Arg Ile Gly Tyr Pro Lys Pro Ala Leu Xaa Thr 150 155 Pro Pro Ser Ser Gln Pro Cys Xaa Ala Pro Arg Pro Lys <210> 856 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (79) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (83) <223> Xaa equals any of the naturally occurring L-amino acids

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Ala His Cys Leu Gln Glu Ser Arg Glu Phe Gln Gly Lys Val Arg Ser
Gln Asp Pro Arg Glu Xaa Gly Gly Thr His Arg Leu Pro Gly His Gly
             20
                                 25
                                                     30
```

```
Gly Arg Pro His Leu Arg Pro Xaa Leu Leu Pro Pro Gly Ala Thr Ala
                             40
Ser Ala Leu Gln Leu Met Met Arg Thr Arg Ile Ala Ala Gln Val Ser
                        55
Arg Phe Ala Ala Ile Leu Leu Gly Leu Gly Val His Ala Met Xaa Phe
Ser Asn Xaa Xaa Pro Gly Leu Xaa Leu Lys Ser Xaa Gln Lys Trp Xaa
                85
                                     90
Pro Lys Xaa Arg Glu Gln Thr Met Gly Pro Thr Xaa Gly Phe Ile Pro
            100
                                105
Ser Phe Leu Leu Lys Gly Pro Xaa Phe Val Gly Glu Xaa Ile Glu Pro
                            120
Leu Cys Asn Val Asn Glu Asn Phe Xaa Lys Ile
    130
                        135
<210> 857
<211> 30
<212> PRT
<213> Homo sapiens
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5
                                10
Phe Phe Phe Lys Lys Xaa Lys Lys Lys Xaa Gly Lys Xaa
            20
                             25
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<211> 58
<212> PRT
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Cys Trp Asn Gln Cys Phe Xaa His Val Phe Asn Ser Leu Val Tyr Gly
                                     10
Xaa Pro Xaa Gln Met Tyr Leu Asn Lys Gln Lys Pro Phe Lys Lys
                                 25
Lys Lys Asn Pro Gly Gly Gly Ala Arg Xaa Pro Ile Pro Pro Lys Xaa
Gly Xaa Xaa Xaa His Ser Arg Ala Gly Val
     50
                         55
<210> 859
<211> 69
<212> PRT
<213> Homo sapiens
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<220>
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<222> (52)
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Xaa Xaa Xaa Xaa Asn Pro Asn Xaa Xaa Pro Xaa Xaa Gly Met Leu
```

1

```
· 5
                                     10
                                                         15
Ile Xaa Glu Xaa Val Lys Lys Val Lys Gly Asn Ser Gly Lys Ser Xaa
                                 25
Pro Ala Xaa Leu Pro Lys Thr Ser Xaa Leu Ala Ser Pro Val Leu Glu
                             40
                                                 45
Ala Pro Ala Xaa Pro Val Asp Thr Cys Leu Thr Gly Arg Gly Tyr Pro
Asn Arg Gly Lys Gly
 65
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<222> (37)
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912

<220> <221> SITE <222> (47)

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Xaa Ala Leu Gly Asn Arg Phe Gly Ala Gly Xaa Gly Arg Arg Leu Trp
                                      10
Phe Trp Lys Val Val Pro Val Val Asp Leu Val Xaa Ala Gly Gly Val
Val Val Xaa Leu Xaa Leu Val Ala Xaa Cys Val Leu Glu Val Xaa Ser
         35
                              40
                                                  45
<210> 861
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<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids
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Asp Ile Leu Gln Leu Trp Asp Trp Cys Leu Thr Val Xaa Tyr Cys His
                  5
                                    10
Val Asn Val Val Tyr Asp Xaa Lys Xaa Tyr Val Thr Lys Asp Phe Tyr
             20
                                  25
Ser Asp Xaa Phe Ile Ile Lys Gly His Met Arg Leu Val Glu Thr Xaa
Phe Val Val Lys Xaa Xaa Xaa Xaa Asn Phe Cys Thr
     50
                         55
<210> 862
<211> 54
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 862
Asp Gly Ala Leu Leu Ile Pro His Gln Asp Glu Gln Ser Trp Pro Ser
```

```
1
                                     10
                                                          15
Ile Met Thr Glu Arg Gly Arg Leu Arg Gly Ser Pro Asp Cys Xaa Glu
             20
                                  25
Leu Arg Thr Gln Trp Arg Phe Xaa Gly Thr Leu Arg Ser Leu Trp Gln
                             40
Ala Trp Ser Gly Ser Pro
     50
<210> 863
<211> 63
<212> PRT
<213> Homo sapiens
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<222> (45)
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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 863
Pro Trp Leu Arg His Glu Met Glu Pro Leu Ile Xaa Ile Trp Ser Ser
                                     10
Ser Leu Ile Thr Asp Gly Xaa Ile Arg Val Trp Val Glu Xaa Leu Xaa
                                 25
Xaa Lys Lys Gly Cys Phe Trp Ser Xaa Val Phe Phe Xaa Thr Ser Ala
Leu Gly Gly Ile Trp Gln Ile Xaa Arg Xaa Arg Phe Gly Glu Leu
                         55
<210> 864
<211> 78
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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Ile Arg Xaa Xaa Gln Arg Pro Lys Gln Leu Xaa Gly Arg Xaa Cys Xaa
Ser Xaa Asp Phe Leu Glu Pro Glu Lys Lys Xaa Glu Xaa Xaa Leu Val
                                25
Pro Xaa Xaa Met Trp Leu Cys Pro Ala Gly Pro Xaa Thr Xaa Ser Cys
Xaa Gly Xaa Phe Trp Cys Cys Val Arg Xaa Xaa Gly Thr Phe Gly Xaa
     50
                         55
Gly Ser Pro Xaa Ile Pro Gly Thr Pro Gly Ser His Gly Leu
 65
                     70
<210> 865
<211> 67
<212> PRT
<213> Homo sapiens
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<222> (20)
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<221> SITE
<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids
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919

<220> <221> SITE <222> (62) <223> Xaa equals any of the naturally occurring L-amino acids <400> 865 Ser Ile Asp Leu Val Asp Asn Thr Pro Ser Pro Pro Leu Arg Arg Cys Phe Val Ile Xaa Xaa Pro Pro Thr Pro Arg Ala Glu Pro Xaa Xaa Pro Phe Glu Glu Gly Xaa Leu Val Ile Leu Leu Cys Gly Xaa Trp Arg Asn Val Xaa Xaa Val Lys Xaa Ala Ser Xaa Leu Gly Pro Xaa Xaa Ile Gly 55 Leu Val Lys 65 <210> 866 <211> 79 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids <400> 866 Ile Tyr Ala Val Val Ala Thr Asn Arg Pro Met Ile Xaa Leu Ala Gly 10 Gln Val Phe Ser Arg Ala Lys Ser Pro Ser Gly Pro Leu Ala Gly Lys 20 25 Ala Ser Arg Ser Ala Leu Ser Cys Gln Thr Ser Gly Arg Ile Pro Gly Arg Gln Lys Pro Leu His Leu Leu Cys Arg Thr Leu His Phe Pro Asn 50 Pro Pro Gln Val Gly Arg Ala Glu Gly Ala Ser Ala Ser Leu Asp 65 70 75

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<210> 867
<211> 116
<212> PRT
<213> Homo sapiens
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921

<400> 867 Thr Gly Thr Ser Leu Met Cys Pro Cys Pro Ser Asp Asp Ser Trp Gly 5 10 Ser Gly Gly Glu Ser Pro Arg Thr Arg Ala Val Ala Phe Pro Gln Leu Leu Arg Leu Pro Ala Phe Pro Ala Glu Thr Ala Arg Pro Val Gly 40 Trp Arg Gly Arg Pro Gly Leu Gln Thr Thr Ser Ala Ile Thr Trp Leu 50 55 Xaa Val Pro Lys Gln Asp Ile His Thr Val Pro Leu Xaa Pro Ser Ser 75 Ser Xaa Lys Xaa Lys Gly Lys Ala Lys Leu Lys Xaa Leu Leu Gly Pro 85 90 Trp Leu Xaa Ser Phe Phe Pro Xaa Pro Xaa Ala Leu Pro Xaa Ala Arg 105 Leu Lys Lys Thr 115 <210> 868 <211> 57 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

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922

<400> 868 Pro Ser Phe Leu Lys Pro Arg Cys Val Pro Gln Leu Gln Arg Val Gly Met Gly Ile Thr Leu Asn Cys Gly Lys Ala Glu Trp Lys Xaa Gln Phe 25 His Arg Xaa Lys Gln Leu Leu Gly Xaa Tyr Ser Val Pro Arg Xaa Arg Glu Asn Phe Leu Gly Lys Tyr Phe Val <210> 869 <211> 40 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (34) <223> Xaa equals any of the naturally occurring L-amino acids Pro Leu Tyr Leu Leu His Asn Glu Leu Thr Arg Asn Asn Phe Ala Arg Arg Ala Lys Ala Lys Thr Pro Glu Thr Arg Arg Ala Thr Xaa Glu Thr 25 Ala Xaa Arg Ala His Pro Ser Met 35 <210> 870 <211> 38 <212> PRT <213> Homo sapiens <220>

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Val Asn Val Thr Tyr Xaa Gln Phe Ser Leu Phe Glu Tyr Arg Met Xaa
                  5
                                     10
Thr Leu His Xaa Xaa Ile Xaa Arg Ala Trp Gly Ile Leu Pro Met Asn
                                25
Phe Leu Gln Ala His Leu
        35
<210> 871
<211> 95
<212> PRT
<213> Homo sapiens
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 871
Ala Lys Leu Phe Gly Lys Val Leu Pro Thr Ala Pro Val Arg Val Ile
Leu Ala Pro Leu Arg Lys Gly Val Arg Val Ser Val Pro Pro Ala Thr
                                 25
```

924

Pro Pro Ala Phe Pro Ser Leu Pro Ile Ser Leu Pro Gln Gly Pro Glu Leu Pro Pro Asp Trp Arg Ala Ser Pro Ala Gln Pro Arg His Arg Pro Pro Ser Gly Pro Pro Val Ala Arg Phe Pro Gly Phe Ile Pro Gln Pro 70 Leu Leu Xaa Pro Phe Ile Pro Ile Ser Tyr Cys Tyr Cys Glu 85 90 <210> 872 <211> 30 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (26) <223> Xaa equals any of the naturally occurring L-amino acids <400> 872 Ala Gln Trp Gln Cys Ser Glu Xaa Arg Phe Ser Pro Pro Val Ser Ala 5 10 Val Thr Ala Leu Gly Phe Ser Arg Xaa Xaa Phe Leu Ile Leu 25 <210> 873 <211> 76 <212> PRT <213> Homo sapiens <400> 873 Thr Lys Ile Leu Gln Ile Val Pro His Glu Tyr Pro Pro Ser Ser Ala

10

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Ile Leu Gln Ser Gly Asn Arg Trp Val Glu Ala Ala Gln Val Asn Tyr
             20
                                  25
Pro Ala Cys Leu Ser Ile His Ser Ser Ser Ser Ser Gln Arg Leu Lys
         35
                              40
Ala Gly Pro Phe Gln Ser Ser Gln Pro Val Leu His Leu Val Pro Pro
Asp Pro Gly Met Glu Ala Leu Ser Pro Thr Val Trp
 65
                     70
<210> 874
<211> 61
<212> PRT
<213> Homo sapiens
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<400> 874
Arg Thr Leu Phe Lys Thr Gly Ser Ser Ile Gly Trp Ser Asn Lys Asp
                 5
                                     10
Ser Leu Gln Val Gln Phe Xaa Gly Pro Xaa Gly Lys Leu Xaa Thr Asn
                                 25
His Asn Gly Leu Ile Lys Arg Xaa Thr Ile Ile Xaa Leu Gln Arg Leu
Leu Tyr Arg Gly Xaa Ile Leu Tyr Leu Pro Gln Xaa Ser
     50
                         55
<210> 875
<211> 77
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids
Lys Leu His Leu Gln Ile Phe Leu Pro Met Asn Asn Val Val Asp Ser
                  5
                                     10
Val His Ser Phe Ser Leu Ser Leu Ser Leu Ser His Thr His Thr His
                                 25
Thr His Thr His Thr His Arg His Gly Thr Ile Leu Pro Gly Ala Leu
         35
                                                 45
Glu His Ile Pro Gly Gly His Arg Trp Ser Glu Ser Leu Gly Gly Tyr
     50
                         55
                                             60
```

```
Leu Ser Xaa Leu Gly Xaa Pro Asn Val Ser Trp Gly Xaa
 65
                     70
<210> 876
<211> 41
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
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Leu Val Pro Asn Ser Ala Arg Gly Glu Arg Glu Arg Glu Arg Glu Arg
                  5
                                     10
Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg
                                 25
Glu Arg Glu Arg Glu Xaa Gly Xaa Xaa
         35
<210> 877
<211> 45
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (20)

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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 877
Leu Asp Leu Leu Tyr Arg Asp Met Val Gln Xaa Gly Leu Leu Lys Phe
                  5
                                      10
Ile Glu His Xaa Asn Tyr Glu Thr Xaa Thr Phe Tyr Ile Ser Glu Asp
                                  25
Met Gly Xaa Asn Leu Trp Lys Ile Gln Val Ala Gly Xaa
                              40
<210> 878
<211> 107
<212> PRT
<213> Homo sapiens
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929

<222> (97) <223> Xaa equals any of the naturally occurring L-amino acids Arg Gly Pro Arg Ala Arg Asp Ala Ala Ala Leu Pro Pro Pro Thr Pro 10 Thr Ala Pro Ser Phe Ala Ser Ser Pro Gly Ala Ser Pro Arg His Arg 25 Arg Arg Pro Gly His Arg His Pro Pro Gln Pro Cys Pro Pro Gly Pro Cys Pro Arg Pro Pro Thr Ala Gly Cys Ser Ala Ala Arg Ala Pro Arg Ala Gly Arg Ala Xaa Arg Glu Leu Arg Asp Tyr Val Thr Arg Thr Tyr 70 75 Ser Leu Xaa Ser Ala Leu Ser Pro Asn Xaa Ser Arg Thr Ser Thr Leu Xaa Pro Gly Arg Arg Val Cys His Ala Leu Leu 100 <210> 879 <211> 62 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids <400> 879 Ile Leu Thr Tyr Ile Phe Thr Pro Asn Phe Thr Phe Ser Glu Ile Arg 10

Ile Ser Leu Val Ala Gln Leu Thr Xaa Asn Gln Glu Ser Phe Lys Lys

Met Ile Leu Lys Met Ala Gly Lys Ile Ser Phe Tyr Cys Arg Gln Phe

40

25

20

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Leu Asn Trp Lys Phe Gly Xaa Met His Asn Lys Ser Cys Gly
     50
                         55
<210> 880
<211> 25
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 880
Gly Thr Arg Arg Glu Arg Glu Arg Xaa Arg Glu Arg Glu Arg Glu Arg
 1
                  5
                                     10
Glu Arg Glu Arg Glu Xaa Xaa
             20
<210> 881
<211> 71
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 881
Arg Cys Ala Ile Asp Phe Phe Ser Ser Trp Leu Phe Asn Ser Pro Val
                  5
                                     10
Ser Ile Thr Val Leu Pro His Xaa Gly Xaa Thr Glu Arg Lys Leu Ala
                                 25
Phe Leu Phe Phe Leu Gly Pro Leu Pro Pro Arg Pro Leu Asn Phe Trp
Asn Pro Lys Glu Asn Xaa Xaa Gly Lys Thr Xaa Phe Xaa Gly Phe Xaa
     50
                         55
Lys Asn Trp Glu Xaa Xaa Pro
 65
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<211> 127
<212> PRT
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<221> SITE
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<221> SITE
<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (127)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 882
Ala Gln Pro Arg Thr Gly Val Asp Ser Pro Thr Ser Thr Ser Phe Leu
                                     10
Leu Cys Ser Gln Thr Met Ser Gly Pro Pro Ser Ser Arg Ala Arg Xaa
                                 25
Pro Gly Gly Ser Ser Pro Thr Pro Thr Pro Val Ser Ala Gly Thr Gly
         35
                             40
Ser Phe Leu Arg Ala Lys Val Lys Asp Pro Leu Cys Glu Gly Ser Ala
Glu Val Gly Ser His Ala Pro Ser Arg Pro Leu Pro Ala Leu His Ser
                                         75
Gly Arg Asn Leu Ser Phe Pro Cys Glu Lys Gly Gln Arg Val Gln Ala
                 85
Ser Gln Val Gln Arg Glu Gly Pro Gln Xaa Leu Leu Ala Ala Lys His
                                105
Ala Asp Pro Met Asp Ile Xaa Gly Lys Gly Ser Leu Pro Ala Xaa
                            120
                                                125
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<210> 883
<211> 66
<212> PRT
<213> Homo sapiens
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Lys Met Lys Pro Lys Met Lys Tyr Ser Thr Asn Lys Ile Ser Thr Ala
                 5
                                     10
Lys Trp Lys Asn Thr Ala Ser Lys Ala Leu Cys Phe Lys Leu Gly Lys
                                 25
Ser Gln Gln Lys Xaa Lys Glu Val Cys Pro Met Tyr Phe Met Lys Leu
         35
Arg Ser Gly Leu Met Ile Lys Lys Glu Ala Trp Xaa Phe Xaa Arg Glu
     50
                         55
                                             60
Thr Thr
 65
<210> 884
<211> 16
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (13)
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<220>
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934

<221> SITE
<222> (16)
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<400> 884
Gly Ala Met Arg Gly Asp Arg Gly Leu Trp Ser Trp Xaa Thr Leu Xaa
1 5 10 15

<210> 885

<211> 37

<212> PRT

<213> Homo sapiens

<400> 885

Glu Gln Leu Lys Glu His Thr Arg Leu Cys Ser Lys Ile Val Gly Arg

1 5 10 15

Phe Ile Gly Arg Gly Asp Lys Pro Thr Glu Pro Gly Asp Ser Trp Leu 20 25 30

Ser Lys Ile Glu Ser 35

<210> 886

<211> 91

<212> PRT

<213> Homo sapiens

<400> 886

Arg Arg Gly Phe Pro Gly Tyr Met Tyr Thr Asp Leu Ala Thr Ile Tyr 1 5 10 15

Glu Arg Ala Gly Arg Val Glu Gly Arg Asn Gly Ser Ile Thr Gln Ile 20 25 30

Pro Ile Leu Thr Met Pro Asn Asp Asp Ile Thr His Pro Ile Pro Asp 35 40

Leu Thr Gly Tyr Ile Thr Glu Gly Gln Ile Tyr Val Asp Arg Gln Leu 50 55 60

His Asn Arg Gln Ile Tyr Pro Pro Ile Asn Val Leu Pro Ser Leu Ser 65 70 75 80

935

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Thr Val Asn Glu Val Cys Tyr Trp Arg Arg Gly
<210> 887
<211> 733
<212> DNA
<213> Homo sapiens
<400> 887
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga 120
teteceggae teetgaggte acatgegtgg tggtggaegt aagecaegaa gaecetgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg 360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgq 600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720
gactctagag gat
                                                                   733
<210> 888
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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Trp Ser Xaa Trp Ser
 1
<210> 889
<211> 86
<212> DNA
<213> Homo sapiens
<400> 889
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gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60

cccgaaatat	ctgccatctc	aattag				86
<210> 890 <211> 27 <212> DNA <213> Homo	sapiens					
<400> 890 gcggcaagct	ttttgcaaag	cctaggc				27
<210> 891 <211> 271 <212> DNA <213> Homo	sapiens					
aaatatctgc gcccctaact ttatgcagag	ccccgaaatc catctcaatt ccgcccagtt gccgaggccg ctaggctttt	agtcagcaac ccgcccattc cctcggcctc	catagtcccg tccgccccat tgagctattc	cccctaactc ggctgactaa	cgcccatccc ttttttttat	120 180
<210> 892 <211> 32 <212> DNA <213> Homo	sapiens					
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					taactccgcc	
					cagaggccga	
ggccgcctcg						
cttttgcaaa		•	5 5 5-55	33	J JJ: J J	256

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Published:

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



A3

(54) Title: HUMAN LUNG CANCER ASSOCIATED GENE SEQUENCES AND POLYPEPTIDES

(57) Abstract: This invention relates to newly identified lung or lung cancer related polynucleotides and the polypetides encoded by these polynucleotides herein collectively known as "lung cancer antigens", and to the complete gene sequences associated therewith and to the expression products thereof, as well as the use of such lung cancer antigens for detection, prevention and treatment of disorders of the lung, particularly the presence of lung cancer. This invention relates to the lung cancer antigens as well as vectors, host cells, antibodies directed to lung cancer antigens and recombinant and synthetic methods for producing the same. Also provided are diagnostic methods for diagnosing and treating, preventing and/or prognosing disorders related to the lung, including lung cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of lung cancer antigens of the invention. The present invention further relates to methods and/or compositions for inhibiting the production and/or function of the polypetides of the present invention.

INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/05918

A. CLASSIFICATION OF SUBJECT MATTER						
IPC(7) :A01N 43/04; C07H 21/02, 21/04; C12Q 1/68						
US CL : 435/06; 514/44; 536/23.1, 24.3						
According to International Patent Classification (IPC) or to both national classification and IPC						
B. FIELDS SEARCHED						
Minimum documentation searched (classification system follow	ed by classification symbols)					
U.S. : 435/06; 514/44; 536/23.1, 24.3	•					
Documentation searched other than minimum documentation to the	ne extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)						
C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category* Citation of document, with indication, where a	appropriate, of the relevant passages Relevant to claim No.					
A GERHOLD et al. It's the genes! E content. BioEssays. 1996, Vol. 18, N	GERHOLD et al. It's the genes! EST access to human genom content. BioEssays. 1996, Vol. 18, No. 12, pages 973-981.					
Further documents are listed in the continuation of Box						
* Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention					
"E" earlier document published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be					
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be					
O document referring to an oral disclosure, use, exhibition or other means	considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art					
 P document published prior to the international filing date but later than the priority date claimed 	*&* document member of the same patent family					
Date of the actual completion of the international search	Date of mailing of the international search report					
23 MAY 2000	19 OCT 2000					
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT	Authorized officer					
Washington, D.C. 20231 Facsimile No. (703) 305-3230	MICHAEL BORIN 1					
	Telephone No. (703) 308-4196					

INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/05918

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)				
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:				
2. Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:				
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).				
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)				
This International Searching Authority found multiple inventions in this international application, as follows:				
Please See Extra Sheet.				
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.				
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.				
As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:				
4. X No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-10, SEQ ID No.:1				
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.				

INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/05918

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional examination fees must be paid.

Group I, claims 1-10, drawn to nucleic acids, vectors, host cells and method of making recombinant cell using said nucleic acids.

Group II, claims 11, 12 and 16 drawn to isolated polypeptides.

Group III, claim 13, drawn to antibody.

Group IV, claim 14, drawn to a host cell expressing polypeptide of Group II.

Group V, claim 15, drawn to method of making polypeptide.

Group VI, claim 17, drawn to method for polypeptide-based method of treatment.

Group VII, claim 18, drawn to polynucleotide-based method of diagnosing a pathological condition.

Group VIII, claim 19, drawn to polypeptide-based method of diagnosing a pathological condition.

Group IX, claim 20, drawn to polypeptide-based method of identifying a binding partner to the polypeptide and to a product determined by this method.

Group XI, claim 21, drawn to a gene.

Group XII, claims 22 and 23, drawn to polynucleotide-based method of identifying activity.

The inventions listed as Groups I-XII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The inventions listed as Groups I-IV, XI are drawn to different products which they lack the same or corresponding special technical features. Groups VII, XII are different methods of use of the product of Group I. Groups VI, VIII, IX are different methods of use of the product of Group IV.

Sequence Election Requirement Applicable to All Groups

In addition, each Group detailed above reads on distinct Groups drawn to multiple sequences. The sequences are distinct because they are unrelated sequences, and a further lack of unity is applied to each Group. The lack of unity is partially waived and the Applicants must further elect 10 sequences for examination in the elected Group detailed above. Payment of fees for an additional invention will entitle the Applicants to examination of four additional sequences.